

EXHIBIT 8

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

ANNE DE LACOUR, ANDREA
WRIGHT, and LOREE MORAN,
individually and on behalf of all others
similarly situated,

Plaintiffs,

Case No. 1:16-cv-08364

v.

COLGATE-PALMOLIVE CO., and
TOM'S OF MAINE, INC.,

Defendants.

REBUTTAL EXPERT REPORT OF DR. RAN KIVETZ

CONFIDENTIAL: UNDER PROTECTIVE ORDER

TABLE OF CONTENTS

A.	ASSIGNMENT AND QUALIFICATIONS.....	4
B.	INTRODUCTION AND SUMMARY OF CONCLUSIONS.....	6
C.	OVERVIEW OF THE SOWERS SURVEYS	14
D.	THE SOWERS SURVEYS FAILED TO REPRESENT THE RELEVANT CONSUMER UNIVERSE, AND USED A BIASED KEY SCREENING QUESTION	24
E.	THE SOWERS SURVEYS USED A FUNDAMENTALLY IMPROPER CONTROL	28
F.	THE SOWERS SURVEYS RELIED ON A LEADING CLOSED-ENDED QUESTION (Q.5) THAT GENERATED SEVERE DEMAND EFFECTS AND FOCALISM, WHILE FAILING TO TEST THE PLAINTIFFS' THEORY OF DECEPTION.....	36
F.1.	Mr. Sowers Relied Solely on a Closed-Ended Question to Measure Perceptions of the Challenged “Natural” Claim.....	38
F.2.	The Sowers Surveys’ Key Closed-Ended “Perception” Question is a Trivial and Leading “Matching” Test.....	41
F.3.	The Sowers Surveys’ Key Closed-Ended “Perception” Question (Q.5) Focused Participants on the Researcher’s Hypothesis and Failed to Represent Multiple Alternative Interpretations of “Natural” (Including Tom’s Position).....	45
F.4.	The Sowers Surveys’ Key Closed-Ended “Perception” Question (Q.5) Failed to Test the Plaintiffs’ Theory of Deception	52
G.	THE SOWERS REPORT IS INCOMPLETE; THE SURVEYS’ RESULTS, IF ANYTHING, DEMONSTRATE A LACK OF A LIKELIHOOD OF CONSUMER DECEPTION; AND THE SOWERS SURVEYS DO NOT PROVIDE ANY EVIDENCE OF MATERIALITY.....	60
G.1.	Mr. Sowers Failed to Provide a Complete Report of His Surveys’ Results	61
G.2.	The Sowers Surveys’ Results, If Anything, Demonstrate a <i>Lack</i> of a Likelihood of Consumer Deception	62
G.2.1.	<i>The Results from the Sowers Surveys’ Closed-Ended “Perception” Question (Q.5) Do Not Support the Alleged Consumer Deception and, If Anything, Suggest a Lack of a Likelihood of Deception.....</i>	63
G.2.2.	<i>The Results from the Sowers Surveys’ Open-Ended “Main Message/Other Messages” Questions (Q.1 & Q.2) Do Not Support the Alleged Consumer Deception.....</i>	66

G.2.3. <i>The Results from the Sowers Surveys' Key Open-Ended "Perception" Question (Q.4) Do Not Support the Alleged Consumer Deception and, If Anything, Indicate a Lack of a Likelihood of Deception</i>	77
G.3. The Sowers Surveys Did Not Test for Materiality and Therefore Do Not Provide Any Evidence Regarding the Causal Impact of the Challenged "Natural" Claim on Consumers' Purchase Decisions	85
H. CONCLUSION: THE SOWERS SURVEYS ARE FUNDAMENTALLY FLAWED	89
EXHIBIT A: CURRICULUM VITAE OF DR. RAN KIVETZ	91
EXHIBIT B: LIST OF CASES IN WHICH DR. RAN KIVETZ PROVIDED SWORN TESTIMONY IN DEPOSITION AND/OR TRIAL DURING THE PAST FOUR YEARS	119
EXHIBIT C: DOCUMENTS MADE AVAILABLE TO DR. RAN KIVETZ IN CONNECTION WITH PREPARATION OF THIS <i>REBUTTAL EXPERT REPORT</i>	121

A. ASSIGNMENT AND QUALIFICATIONS

1. My name is Dr. Ran Kivetz. I previously provided in this matter an *Expert Declaration* on September 21, 2018¹ and an *Expert Report* on July 22, 2022.² I have been asked by counsel for Tom's of Maine, Inc. (hereinafter, "Tom's") and Colgate-Palmolive Co. (hereinafter, collectively the "Defendants") to evaluate Brian M. Sowers's Report (hereinafter, the "Sowers Report")³ and the perception surveys that he conducted (hereinafter, the "Sowers Toothpaste Survey" and the "Sowers Deodorant Survey"; collectively, the "Sowers Surveys") on behalf of the Plaintiffs.⁴

2. I have personal knowledge of the matters set forth in this report and, if called to testify at a hearing or trial in this matter, would so state.

3. I am the Philip H. Geier, Jr., Professor of Marketing at Columbia University Business School. A copy of my curriculum vitae, which includes a complete list of my publications, is attached as Exhibit A.

4. I earned a Ph.D. in Business from Stanford University, Graduate School of Business; a Master's degree in Psychology from the Stanford University Psychology Department; and a Bachelor's degree from Tel Aviv University with majors in Economics and Psychology.

5. My field of expertise encompasses consumer psychology and behavior; survey methods; marketing management; behavioral economics; human judgment, perception, and decision making; customer retention and loyalty; consumer and sales incentives; and branding. Most of my research has focused on buyers' purchase behavior; survey design; and the effect of product characteristics (e.g., brand, features, quality, price), the competitive context, and marketing activities (e.g., promotions, incentives, loyalty

¹ September 21, 2018 Expert Declaration of Dr. Ran Kivetz (hereinafter, "my September 21, 2018 *Expert Declaration*" or the "September 21, 2018 Kivetz Expert Declaration").

² July 22, 2022 Expert Report of Dr. Ran Kivetz (hereinafter, "my July 22, 2022 *Expert Report*" or the "July 22, 2022 Kivetz Expert Report").

³ July 21, 2022 Expert Report of Brian M. Sowers (hereinafter, the "Sowers Report").

⁴ See December 9, 2016 First Amended Class Action Complaint, in *de Lacour et al. v. Colgate-Palmolive Co. and Tom's of Maine, Inc.* (Doc. No. 8), Case No. 1:16-cv-08364 (hereinafter, "Complaint").

programs, advertising, branding) on purchase decisions and perceptions. I have conducted, supervised, and evaluated well over 1,000 marketing research surveys, including many related to consumer behavior and decision making, likelihood of confusion, sales promotions, marketing strategies, branding, trademark, and advertising-related issues.

6. I have worked as a consultant for companies and organizations on a variety of topics, including strategy, marketing, consumer behavior and perception, promotions, branding, advertising, and incentives. Additionally, I have served as an expert in litigation and adversarial proceedings, including in front of the National Advertising Division of the BBB National Programs (“NAD”), involving various marketing and buyer behavior issues, false advertising, market surveys, patent infringement, trademark and trade dress related matters, branding, retailing, promotions, and other areas. I have also been invited to present at the annual NAD Law Conference, and I have served as an expert witness for the Federal Trade Commission. My opinions and testimony have been favorably cited and relied upon by courts across the U.S., including in cases alleging consumer fraud or deception and false advertising.⁵

7. A list of cases in which I provided sworn testimony at trial and/or by deposition during the past four years is attached as Exhibit B. I am being compensated in this matter at a rate of \$1,000 an hour. My compensation does not depend in any way on my opinion or the outcome of this matter.

8. I incorporate by reference the analyses and conclusions in my September 21, 2018 *Expert Declaration* and my July 22, 2022 *Expert Report* in this litigation. That

⁵ See, e.g., Statement of Decision, *People of the State of California v. Kohl's Department Stores, Inc. et al.*, Case No. BC643037 (Cal. Sup. Ct. 2021) (noting, e.g., that: “As carefully reviewed by Kohl’s rebuttal expert, Ran Kivetz, Ph.D., who the Court found highly competent and entirely credible based on his outstanding academic credentials, his thorough research into Dr. Compeau’s reports and his appearance and candor while testifying [...]”; and “[t]he Court accepts as entirely credible and supported by sound scientific analysis, the conclusion of Dr. Kivetz, that none of the articles referenced in Dr. Compeau’s reports provide valid scientific evidence for [Dr. Compeau’s] opinion [...]”); *Dyson, Inc. v. Bissell Homecare, Inc.*, 951 F.Supp.2d 1009, 1019 (N.D. Ill. 2013) (upholding the methodology, questions, and coding of my survey and denying Bissell’s motion to exclude my expert report).

declaration also sets out my qualifications in greater detail. My analyses are based on, *inter alia*, the brands, products, packaging, advertising, and websites relevant to the personal care (including toothpaste and deodorant) industry; existing scientific research and treatises regarding survey design, consumer behavior, and decision making; general principles of marketing and psychology; industry research; market research conducted on behalf of Tom's in the normal course of business; deposition testimony; and the two consumer surveys that I conducted in this case, as set forth in my September 21, 2018 *Expert Declaration*. In conducting my analysis, I, or support staff at my direction, reviewed certain documents, including, but not limited to, documents that were made available to me in connection with the preparation of this *Rebuttal Expert Report*. Those documents are referenced herein and/or listed in Exhibit C.

9. Any, and all, of the opinions expressed herein are held to a reasonable degree of professional certainty. The information on which I relied consists of the type of information that is reasonably relied upon in my field of expertise.

B. INTRODUCTION AND SUMMARY OF CONCLUSIONS

10. The Plaintiffs allege that the “natural” and other related challenged representations (hereinafter, the “challenged ‘natural’ claim”), which appear on the disputed Tom's products⁶ packaging, commonly misled class members⁷ into buying, and paying a higher price for, the disputed Tom's products.⁸ Further, it is my understanding

⁶ I understand that the products in dispute in this litigation (hereinafter, collectively, the “disputed Tom's products”) consist of the toothpaste and deodorant products listed in Exhibit 1 to the Westcot Declaration in Support of Plaintiffs' Renewed Motion for Class Certification (Dkt. No. 103-1) (“Tom's of Maine Products Included in Putative Class”).

⁷ I understand that the class in this litigation consists of the following (hereinafter, collectively, the “class” or the “*de Lacour* class”): “All persons who purchased Tom's of Maine deodorant and/or toothpaste products, as identified in Exhibit 1 to the Westcot Declaration, on or after September 24, 2015 in the state of New York [California / Florida] excluding persons who purchased for purpose of resale”; *see* April 23, 2021 Opinion & Order (Dkt. No. 146) (hereinafter, “Class Certification Order”), p. 32.

⁸ *See, e.g., Complaint, ¶¶ 1 – 4; February 21, 2020 Memorandum of Law in Support of Plaintiffs' Renewed Motion for Class Certification, Appointment of Class Representatives, and Appointment of Class Counsel* (Dkt. No. 102) (hereinafter, “Class Certification Motion”), pp. 1 & 4. The disputed Tom's products include only the toothpastes and deodorants identified in Exhibit 1 to the Westcot Declaration.

that the Plaintiffs contend that the challenged “natural” claim misled the class members into believing that the disputed Tom’s products do not contain any synthetic or chemically-processed ingredients. For example, in their February 21, 2022 Class Certification Motion, Plaintiffs allege the following:⁹

A reasonable consumer would understand and expect that a product labeled “natural” would in fact be natural. [...] Unfortunately for consumers, however, the Tom’s Products in question are not actually “natural.” Instead, the Products **contain ingredients that are synthetic, artificial, and chemically processed**. These ingredients include sodium lauryl sulfate (“SLS”) and propylene glycol, which Defendants have recognized as ingredients that consumers try to avoid. [Emphasis added]

And:¹⁰

Defendants’ representation that their Products are “natural” is false and misleading because each of the Products **contains at least one, and in most instances, several, ingredients that are synthetic or chemically processed**. The numerous chemical ingredients included in Tom’s Products are not natural and are not the type of ingredients a reasonable consumer would expect to be in a natural product. The term “natural” means “existing in nature and not made or caused by people; coming from nature” or “not having any extra substances or chemicals added; not containing anything artificial.” Industry and regulatory definitions of natural are also instructive in defining a reasonable consumer standard. For example, the National Advertising Division of the Better Business Bureau has found that a “natural” ingredient does not include one that, while “literally sourced in nature” (as is every chemical substance), is, nevertheless **subjected to extensive processing before metamorphosing into the ingredient that is included in the final product**. [Emphases added; FN omitted]

11. According to Mr. Sowers, his Toothpaste Survey and Deodorant Survey (“the Sowers Surveys”) attempted to test consumers’ perceptions of the challenged “natural” claim that appeared on the disputed Tom’s toothpaste and deodorant products, respectively.¹¹

12. As detailed herein in this *Rebuttal Expert Report*, the Sowers Surveys were fatally flawed and biased in a manner that favored the Plaintiffs, leading to inflated, invalid, and unreliable “net deception” estimates. Based on the materials and scientific analyses on which I have relied, along with my background and expertise, I have reached the following conclusions:

⁹ Class Certification Motion, p. 3.

¹⁰ *Id.*, p. 8.

¹¹ See, e.g., Sowers Report, ¶ 7.

13. The Sowers Surveys failed to represent the relevant consumer universe and used a biased screening question to qualify survey participants. In particular, Mr. Sowers sampled participants who expected to purchase *natural* toothpaste and *natural* deodorant (in the Sowers Toothpaste Survey and the Sowers Deodorant Survey, respectively). Such a universe is underinclusive, as it inappropriately excludes relevant data from many prospective purchasers of the disputed Tom's products who do not buy exclusively within a so-called (ill-defined) “natural” category and/or who may *not* associate Tom's products with “natural.” The Sowers Surveys' key screening question is also biased and “primes” (or cues) participants with the concept of “natural” prior to the main questionnaire (during which participants were repeatedly exposed to and questioned about a “natural” representation). By erroneously qualifying only purchasers of *natural* toothpastes and *natural* deodorants, the Sowers Surveys' samples skewed toward consumers who would be *most* sensitive to the surveys' leading stimuli and key perception questions, thereby artificially inflating the “net deception” estimates.

14. The Sowers Surveys used a fundamentally improper control.

Specifically, Mr. Sowers constructed control (toothpaste and deodorant) packages that replaced the challenged “natural” claim on the front label with the following “control claim” and “control disclosure” (*see also* Figures 1a and 1b):¹²

CONTAINS SOME NATURAL INGREDIENTS*

*contains one or more artificial ingredients

(Continues on next page)

¹² See, e.g., *id.*, ¶ 22. Note that the “control” claim and the “disclosure” language were also added to one of the sides of the toothpaste package; *see id.*, Appendix I, p. I-3.

Figure 1a: Front Label of the Sowers Toothpaste Survey's Control Package ¹³



Figure 1b: Front Label of the Sowers Deodorant Survey's Control Package ¹⁴



¹³ See *id.*, Appendix I, p. I-3.

¹⁴ See *id.*, p. I-6.

Such conspicuous and exaggerated control stimuli, *inter alia*: induced a severe focalism bias¹⁵ by concentrating participants' attention on specific aspects (*e.g.*, "natural ingredients," "artificial ingredients") they would subsequently be questioned about; failed to approach anything resembling a commercially viable product package; and introduced an extraneous factor (*i.e.* "confound") by suggesting a particular interpretation of "natural" that participants may otherwise never have considered. The Sowers Surveys' fundamentally flawed control packaging forced participants to notice, pay attention to, and attempt to interpret what the added statements mean in the context of the "perception" questions that followed, making it trivial for participants to guess the "expected" answers.

15. One survey treatise characterizes a "survey without a control cell or with a fundamentally inadequate control stimulus" as one of two "[...] flaws that should lead to survey exclusion without extensive analysis or data."¹⁶ The survey treatise author writes:¹⁷

Nonetheless, surveys are still offered without a control cell or with a fundamentally inadequate control stimulus, and such surveys should be excluded or (in a bench trial) wholly discounted. One criterion for survey admissibility is that it have a known error margin, and without a scientific design and a defensible control stimulus, a survey cannot satisfy the reliability mandate.

¹⁵ As I discuss in Section E, *focalism* refers to the phenomenon whereby survey participants are manipulated to focus on (or pay attention to) specific aspects that are presented to them, and not enough on the effects of other (less salient or unavailable) information; *see, e.g.*, Schkade, David and Daniel Kahneman (1998), "Does Living in California Make People Happy? A Focusing Illusion in Judgments of Life Satisfaction," *Psychological Science*, 9(5), 340 – 346; Kahneman, Daniel, Alan B. Krueger, David Schkade, Norbert Schwarz, and Arthur A. Stone (2006), "Would You Be Happier If You Were Richer? A Focusing Illusion," *Science*, 312(5782), 1908 – 1910; Wilson, Timothy D., Thalia Wheatley, Jonathan M. Meyers, Daniel T. Gilbert, and Danny Axsom (2000), "Focalism: A Source of Durability Bias in Affective Forecasting," *Journal of Personality and Social Psychology*, 78(5), 821 – 836; *see also* Kivetz, Ran and Itamar Simonson (2000), "The Effects of Incomplete Information on Consumer Choice," *Journal of Marketing Research*, 37(4), 427 – 448 (This article was a finalist for the 2005 *O'Dell Award* for the article that has had the greatest impact on the marketing field in the previous five years).

¹⁶ Swann, Jerre B. (2012), "Survey Critiques," in *Trademark and Deceptive Advertising Surveys: Law, Science, and Design*, Diamond, Shari S. and Jerre B. Swann (eds), Chicago, IL: American Bar Association, pp. 373 – 374.

¹⁷ *Id.*, p. 374. *See also* Diamond, Shari S. (2011), "Reference Guide on Survey Research," in *Reference Manual on Scientific Evidence*, Federal Judicial Center, p. 401 ("Every measure of opinion or belief in a survey reflects some degree of error. Control groups and, as a second choice, control questions are the most reliable means for assessing response levels against the baseline level of error associated with a particular question.").

16. The Sowers Surveys relied on a leading key closed-ended “perception” question that generated severe demand effects¹⁸ and focalism, while failing to test the Plaintiffs’ theory of deception. Mr. Sowers relied *solely* on results from a single closed-ended question (Question 5)¹⁹ to measure consumer perceptions of the challenged “natural” claim and to reach conclusions about a likelihood of deception. This closed-ended question was leading and flawed in multiple ways. *First*, the question amounted to a trivial “matching” test, whereby participants (who were already cued with the concept of “natural” in the screener questionnaire) were led to easily match the “correct” answer choice to the package they were just shown (e.g., those in the control group were essentially asked whether a package that conspicuously stated “**CONTAINS SOME NATURAL INGREDIENTS***” and “*contains one or more artificial ingredients” in fact “contains some natural ingredients and some artificial ingredients”).

17. *Second*, Question 5 was incomplete and leading, focusing participants on the researcher’s (single) hypothesis while preventing them from expressing any of the multiple alternative interpretations of “natural,” including those that represent Tom’s definition. Indeed, the question’s leading nature is evinced by the considerable levels of “noise” or survey “error” observed in the control group: 33.5% and 38.5% of control participants selected the “contains only natural ingredients” option in the Sowers

¹⁸ As I discuss in Section F, *demand effects* refer to the phenomenon whereby survey participants use cues provided by the survey procedure, stimuli, and questions to figure out the purpose of the study and the answers expected by the researcher. The participants then tend to provide (what they perceive as) the expected answers, to make sure that the results “come out right.” *See, e.g.*, Orne, Marti T. (1962), “On the Social Psychology of the Psychological Experiment,” *American Psychologist*, 17(11), 776 – 783; Darley, William K. and Jeen-Su Lim (1993), “Demand Artifacts in Consumer Research: An Alternative Perspective,” *Journal of Consumer Research*, 20(3), 489 – 495; *see also* Simonson, Itamar and Ran Kivetz (2012), “Demand Effects in Likelihood of Confusion Surveys,” in *Trademark and Deceptive Advertising Surveys: Law, Science, and Design*, Diamond, Shari S. and Jerre B. Swann (eds.), Chicago, IL: American Bar Association, 243 – 259.

¹⁹ Question 5 of the Sowers Surveys asked: “Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?” and presented participants with the following answer choices: (i) “Contains only natural ingredients (i.e., no artificial ingredients)”; (ii) “Contains some natural ingredients and some artificial ingredients”; (iii) “Contains no natural ingredients (i.e., only artificial ingredients)”; (iv) “No opinion”; and (v) “Don’t know/Unsure” [underlining in the original]; *see* Sowers Report, Appendix D, pp. D-23 & D-43.

Toothpaste Survey and the Sowers Deodorant Survey, respectively, indicating that many participants were led by the surveys to guess their answers.

18. *Finally*, the results from the Sowers Surveys' closed-ended "perception" question (Q.5) are *not* determinative or informative, as the question failed to test the Plaintiffs' specific theory of deception (*i.e.*, that consumers were misled into believing, based on the challenged "natural" claim, that the products do not contain any synthetic or chemically-processed ingredients). The Sowers Surveys never tested what participants believe "natural" or "natural ingredients" to actually mean. For example, I understand that Tom's of Maine contends that its products *do* contain "only natural ingredients," in that the ingredients are "naturally sourced" and/or "naturally derived," as set forth in its "Stewardship Model."²⁰ In particular, Tom's invites consumers to learn more about its definition of "natural" by, *inter alia*, reading such information on the disputed packaging as well as on the Tom's of Maine website. Thus, those consumers who care about the presence of "natural ingredients," or who care about the absence of specific ingredients, such as certain "synthetic or chemically-processed ingredients") would be likely to review the ingredients list, consider the various panels on the packaging that describe Tom's definition of "natural," and/or visit the Tom's website. Such readily accessible sources of information dispel the alleged misperception.

19. **Mr. Sowers's surveys' report is *not* complete; his surveys' results, if anything, demonstrate a *lack of a likelihood of consumer deception*; and the surveys do not provide any evidence of materiality.** Despite the Sowers Surveys' methodological flaws and one-sided biases in the Plaintiffs' favor, it is striking that the results nevertheless indicate an *absence* of consumer deception in this litigation. As an initial matter, setting aside the non-determinative (*i.e.*, noninformative) nature of the

²⁰ See, *e.g.*, Robinson Deposition, pp. 79 – 80, 82, 125, & 127; <https://www.tomsofmaine.com/>; <https://www.tomsofmaine.com/our-promise/stewardship-model>; <https://www.tomsofmaine.com/our-promise/ingredients>.

closed-ended “perception” question, Mr. Sowers obtained “net” deception rates of only 26% and 24%, despite the multiple severe one-sided biases in his surveys. Had Mr. Sowers (i) sampled the correct consumer universe, (ii) employed a proper control, and (iii) used a non-leading question that did not induce participants to guess the “correct” answer (as evinced by the high levels of “noise” in the control groups), his observed “net” deception estimates would have been substantially lower.

20. Importantly, Mr. Sowers did not provide a complete report of his surveys’ results, omitting relevant findings from the three open-ended perception questions (*i.e.*, Questions 1 – 2 and Question 4). A coding and analysis of participants’ verbatim responses to these questions reveal a *lack* of a likelihood of consumer deception. Specifically, not only did participants *not* form the alleged misperception (*i.e.*, that the disputed products do not contain any synthetic or chemically-processed ingredients), but also participants took away a wide range of messages and interpretations. Many of these takeaways were either unrelated to “natural” or contextualized “natural” in a manner consistent with Tom’s definition.

21. Finally, it is noteworthy that the Sowers Surveys do not provide evidence for any causal effect of the challenged “natural” claim on consumers’ decisions to purchase the disputed Tom’s products (*i.e.*, Mr. Sowers did not test for or demonstrate *materiality*). Unlike the Sowers Survey, the two empirical consumer surveys that I conducted in this matter²¹ unambiguously demonstrate that the challenged “natural” claim does *not* increase consumers’ likelihood of purchasing the disputed Tom’s toothpaste and deodorant products.²²

22. Based on my experience as a researcher, educator, and business consultant, and having conducted, supervised, and evaluated well over 1,000 marketing research

²¹ As set forth in Section A of my September 21, 2018 *Expert Declaration*.

²² To the contrary, if anything, *displaying* the “natural” claim on the Tom’s toothpaste packaging *decreased* participants’ intentions to purchase the product; *see id.*, Subsection A.1.3.1.

studies, my professional opinion is that the Sowers Surveys are fatally flawed and are *not* based on scientific methodologies that are reasonably relied upon in this field of expertise. Thus, Mr. Sower's conclusion that a substantial proportion of consumers are misled by the challenged "natural" claim is unsubstantiated, as his surveys cannot be used to derive reliable and valid estimates of a likelihood of deception in the marketplace. Given the severity of the Sowers Surveys' flaws, the surveys' estimates and results cannot be reliably corrected or adjusted to remove the underlying bias.

C. OVERVIEW OF THE SOWERS SURVEYS

23. To evaluate the reliability and validity of the Sowers Surveys' methodology and results, it is instructive to first overview the surveys' universes, procedures, stimuli, questions, and controls.

24. The Sowers Surveys attempted to test consumers' perceptions of the challenged "natural" claim on the disputed Tom's toothpastes and deodorants. Regarding his survey assignment, Mr. Sowers states:²³

Plaintiffs Anne de Lacour, Andrea Wright, and Loree Moran ("Plaintiffs") contend that Tom's "natural" representations "are false and **misleading because each of the products contains at least one, and in most instances, several, ingredients that are synthetic or chemically processed.**" Plaintiffs allege that these misrepresentations are likely to deceive reasonable consumers "into believing that the Tom's products are natural when, in fact, the products contain ingredients that are not natural."

I was asked by counsel for Plaintiffs to design and conduct two consumer surveys **to test this allegation.** The first survey, which I will refer to as the Toothpaste Survey, tested whether the "natural" representation on the Tom's toothpaste packaging communicates to relevant consumers that the product contains only natural ingredients (i.e., no artificial ingredients). The second survey, which I will refer to as the Deodorant Survey, tested whether the "natural" representation on the Tom's deodorant packaging communicates to relevant consumers that the product contains only natural ingredients (i.e., no artificial ingredients). [Emphases added; FNs omitted]

25. The Sowers Surveys consisted of two separate surveys—the Sowers Toothpaste Survey and the Sowers Deodorant Survey—each of which was conducted over

²³ Sowers Report, ¶¶ 6 – 7.

the Internet among approximately 400 panelists in California, Florida, or New York²⁴ who, among other criteria,²⁵ indicated that they are “likely to personally purchase” in the next six months either “Natural toothpaste”²⁶ (in the Sowers Toothpaste Survey) or “Natural deodorant”²⁷ (in the Sowers Deodorant Survey).

26. Except for the product category (toothpaste vs. deodorant) and stimuli shown to participants, the Sowers Toothpaste Survey and Sowers Deodorant Survey were identical. Thus, my conclusions regarding one survey apply equally to the other survey, and—except where indicated—I will primarily describe and evaluate these surveys collectively (*i.e.*, as the Sowers Surveys) throughout this *Rebuttal Expert Report*.

27. In each survey, participants who qualified for the main questionnaire were first presented with the following introduction:²⁸

In the next section of the survey, you will be shown images of [toothpaste / deodorant] packaging that you might encounter while shopping. Take as much time as you would like to look at the images. Afterward, you will be asked some questions about what you have seen.

If, for any question, you don’t know the answer or are unsure, please choose the “Don’t know/Unsure” option. **It is very important that you do not guess.**

Please select the “NEXT” button when you are ready to continue.

28. Participants were then randomly assigned either to a test group, in which they were shown a “test” Tom’s toothpaste/deodorant package, or to a control group, in which they were shown a modified, “control” Tom’s toothpaste/deodorant package. On the “control” package, the word “natural” on the front label was replaced with the following claim displayed in all cap, bold, red font (hereinafter, the “control claim”):²⁹

CONTAINS SOME NATURAL INGREDIENTS*

²⁴ See *id.*, ¶¶ 18 & 50. The final dataset included 415 participants in the Sowers Toothpaste Survey (*id.*, ¶ 41) and 408 participants in the Sowers Deodorant Survey (*id.*, ¶ 73).

²⁵ See *id.*, Appendix D, pp. D-13 – D-16 (Sowers Toothpaste Survey screener questionnaire); *id.*, pp. D-36 – D-39 (Sowers Deodorant Survey screener questionnaire).

²⁶ See *id.*, p. D-15.

²⁷ See *id.*, p. D-38.

²⁸ See *id.*, p. D-16 (Sowers Toothpaste Survey); *id.*, p. D-39 (Sowers Deodorant Survey). Emphasis in the original.

²⁹ See, e.g., Sowers Report, ¶ 22.

The “control” claim included an asterisk that referred to a “disclosure” (hereinafter, the “control disclosure”) that appeared on the same front label:³⁰

*contains one or more artificial ingredients

29. Figures 2a and 2b below depict screenshots of the stimuli and survey interface, along with accompanying instructions, shown to participants in the Sowers Toothpaste Survey’s test and control groups, respectively. Figures 3a and 3b depict corresponding screenshots shown to participants in the Sowers Deodorant Survey’s test and control groups, respectively.

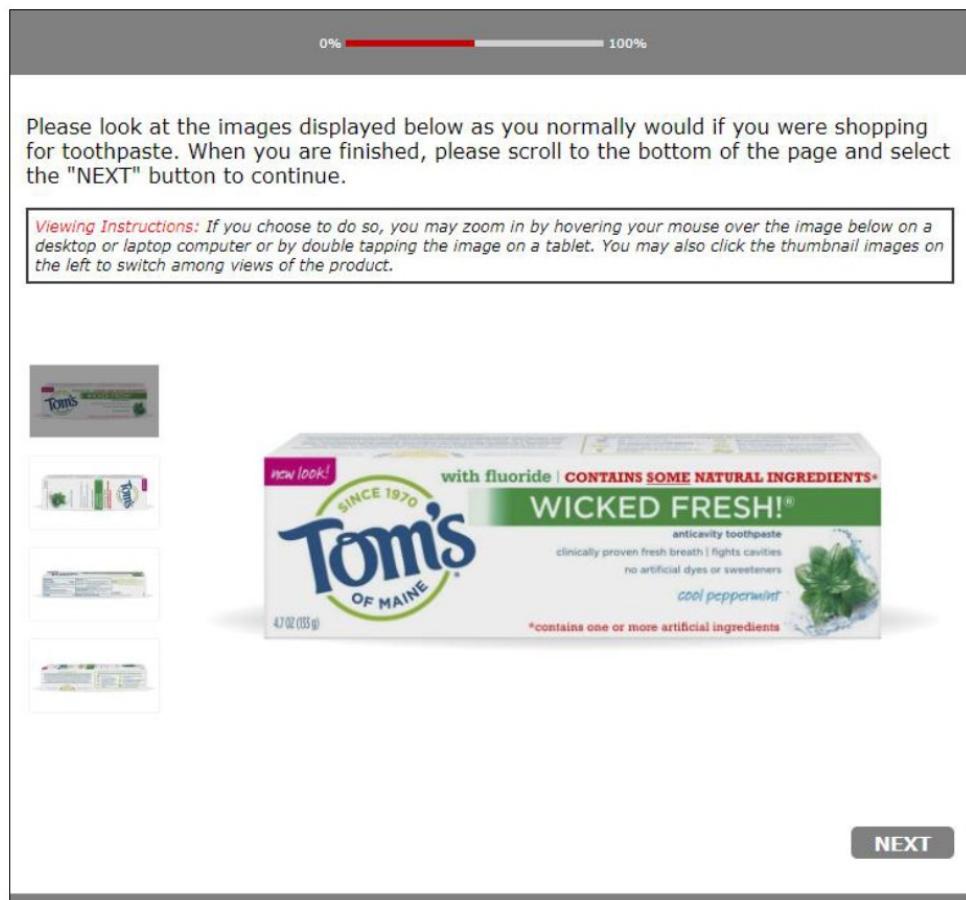
Figure 2a: Screenshot of the Sowers Toothpaste Survey’s Survey Interface (Test Group)³¹



³⁰ See, e.g., *ibid.* Note that the “control” claim and the “disclosure” language were also added to one of the sides of the toothpaste package; *see id.*, Appendix I, p. I-3.

³¹ *See id.*, p. D-8.

Figure 2b: Screenshot of the Sowers Toothpaste Survey's Survey Interface (Control Group)³²



³² See *id.*, p. D-9.

Figure 3a: Screenshot of the Sowers Deodorant Survey's Survey Interface (Test Group)³³



³³ See *id.*, p. D-31.

Figure 3b: Screenshot of the Sowers Deodorant Survey's Survey Interface (Control Group)³⁴



³⁴ See *id.*, p. D-32.

30. In the Sowers Toothpaste Survey, participants could presumably click on any of four thumbnail images to view the front, back, left side, and right side of the toothpaste package. In the Sowers Deodorant Survey, participants could presumably click on any of two thumbnail images to view the front or back of the disputed product's packaging.³⁵ The survey screenshots attached as the Sowers Report's Appendix D suggest that the default image appearing in larger size was the front view of the toothpaste or deodorant package.

31. After indicating in Question 0 that they were able to view the images clearly, participants in each survey were asked the two open-ended questions below regarding the "main message" (Q.1) and any "other messages" (Q.2) communicated by the product packaging:³⁶

Q.1 What was the main message communicated to you by the product packaging? (Please answer as completely as possible. You are not limited by the size of the answer box.)

Don't know/Unsure

Q.2 What other messages, if any, were communicated to you by the product packaging? (Please answer as completely as possible. You are not limited by the size of the answer box.)

No other messages

32. On the next screen, participants were then asked a filter question (Q.3) regarding whether or not the toothpaste (in the Sowers Toothpaste Survey) or deodorant (in the Sowers Deodorant Survey) is "natural".³⁷

³⁵ See, e.g., Sowers Report, ¶ 32 & Appendix D, pp. D-8, D-9, D-31, & D-32.

³⁶ See *id.*, pp. D-22 & D-42. Note that in Question 1, participants could *either* type in the box or select the "Don't know/Unsure" option. Similarly, in Question 2, participants could *either* type in the box or select the "No other messages" option.

³⁷ See *id.*, pp. D-23 & D-43. The order of the first two answer choices was rotated.

Q.3 Did the product packaging communicate anything about whether or not the [toothpaste / deodorant] is natural? (Select one only)

- The product packaging did communicate something about whether or not the [toothpaste / deodorant] is natural
- The product packaging did not communicate anything about whether or not the [toothpaste / deodorant] is natural
- Don't know/Unsure

33. Afterward, those participants who answered Question 3 in the affirmative were asked Question 4, the key open-ended perception question:³⁸

Q.4 What did the product packaging communicate about whether or not the [toothpaste / deodorant] is natural?

Don't know/Unsure

34. Finally, participants were asked Question 5, a *closed-ended* perception question, after which the survey concluded:³⁹

Q.5 Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?

- Contains only natural ingredients (i.e., no artificial ingredients)
- Contains some natural ingredients and some artificial ingredients
- Contains no natural ingredients (i.e., only artificial ingredients)
- No opinion
- Don't know/Unsure

35. Based on his surveys' results, Mr. Sowers opines as follows:⁴⁰

Based on the results of the surveys that I designed and conducted, it is my opinion that the "natural" claim on Tom's toothpaste and deodorant product packaging is likely to deceive reasonable consumers into believing that the products contain only natural ingredients (i.e., no artificial ingredients).

Specifically, 59.8% of Test Group respondents in the Toothpaste Survey indicated they believed that the Tom's toothpaste product contains only natural ingredients (i.e., no artificial ingredients). After accounting for guessing and other forms of survey noise, the net level of deception is 26.3%. [...]

Additionally, 62.5% of Test Group respondents in the Deodorant Survey indicated they believed that the Tom's deodorant product contains only natural ingredients (i.e., no artificial ingredients). After accounting for guessing and other forms of survey noise, the net level of deception is 24.0%. [...]

³⁸ *Ibid.* Participants could *either* type in the box or select the "Don't know/Unsure" option.

³⁹ *Ibid.* The order of the first three answer options was rotated "top to bottom" according to the Sowers Report.

⁴⁰ Sowers Report, ¶¶ 80 – 82.

36. However, to reach valid and reliable conclusions about consumers' perceptions, takeaways, and likelihood of deception, Mr. Sowers should have followed several well-accepted principles before designing his survey and deriving any conclusions. It is well-established that while an adequate survey can provide useful reliable information, the findings of a survey are often largely determined by its methodology. For example, as I have shown in my own research,⁴¹ the choice of methodology can determine whether the survey will demonstrate a significant consumer preference for one alternative or another, making it essential that the most suitable survey method be chosen and used. Indeed, there is little doubt that, by choosing a biased, seriously flawed methodology, one can create "evidence" of various consumer perceptions and preferences that, in reality, do not exist. In particular, a survey's consumer universe and sample, methodology, questions, stimuli, and control are all critical determinants of the survey's findings.

37. Surveys conducted for purposes similar to those of the Sowers Surveys must be designed and conducted based on scientific methodologies that are relied upon in the relevant field of expertise and according to well-established survey standards, including, but not limited to, the factors listed in the *Manual for Complex Litigation*:⁴²

- (i) the population was properly chosen and defined;
- (ii) the sample chosen was representative of that population;
- (iii) the data gathered were accurately reported;
- (iv) the data were analyzed in accordance with accepted statistical principles;
- (v) the questions asked were clear and non-leading;
- (vi) the survey was conducted by qualified persons following proper interview

⁴¹ See, e.g., Kivetz, Ran and Itamar Simonson (2002b), "Self-Control for the Righteous: Toward a Theory of Pre-Commitment to Indulgence," *Journal of Consumer Research*, 29 (2), 199 – 217. This article was a finalist for the award for the Best Article published in the *Journal of Consumer Research* (the major journal on consumer behavior) between 2002 and 2005.

⁴² *Manual for Complex Litigation* (2004), Federal Judicial Center, Fourth, Section 11.493, pp. 112 – 113. Although I am not an attorney, I find it helpful to refer to legal authorities, as well as prior court decisions, to illustrate the types of issues and principles that arise when evaluating surveys used in litigation.

procedures; and

(vii) the process was conducted so as to ensure objectivity.

Such surveys must also, *inter alia*, employ a proper and adequate survey control to account for survey “noise.” Professor Diamond’s *Reference Guide on Survey Research*, published in the *Reference Manual on Scientific Evidence*, elaborates on the aforementioned factors and on various other fundamental survey principles.⁴³

38. The Sowers Surveys violated almost every principle and requirement of scientific surveys referenced above. As such, Dr. Sowers’s conclusions are unsubstantiated and do *not* provide reliable and valid estimates of consumers’ perceptions regarding the disputed products’ packaging (or of the challenged “natural” claim appearing on such packaging). Specifically, as explained in the remaining sections of this *Rebuttal Expert Report*, Mr. Sowers: (i) did *not* represent the relevant consumer universe; (ii) used a fundamentally improper survey control; and (iii) relied solely on a leading closed-ended “perception” question that generated severe demand effects and focalism, and that failed to test the Plaintiffs’ theory of consumer deception. Moreover, Mr. Sowers’s report is incomplete, and the surveys’ data, if anything, demonstrates a *lack* of likelihood of deception in this litigation. Finally, and importantly, even assuming *arguendo* that the Sowers Surveys were to show (which they do *not*) that consumers were commonly confused,⁴⁴ the surveys do not and *could* not address whether the challenged “natural” claim has a *material* effect on class members’ purchase decisions. In contrast, my two empirical surveys in this matter directly tested this research question and demonstrated that the challenged “natural” claim does *not* materially increase consumers’ likelihood of purchasing the disputed Tom’s products.⁴⁵ Next, I explain each of my conclusions.

⁴³ Note that the Sowers Report also cites Professor Diamond’s treatise; *see, e.g.*, ¶ 11 & FN 7.

⁴⁴ That is, confused by the “natural” claim into believing that the disputed products do not contain any synthetic or any chemically-processed ingredients; *see, e.g.*, Class Certification Motion, p. 8.

⁴⁵ As set forth in Section A of my September 21, 2018 *Expert Declaration*.

D. THE SOWERS SURVEYS FAILED TO REPRESENT THE RELEVANT CONSUMER UNIVERSE, AND USED A BIASED KEY SCREENING QUESTION

39. An important criterion in survey design is a proper definition of the consumer universe. Professor McCarthy writes:⁴⁶

The first step in designing a survey is to determine the “universe” to be studied. The universe is that segment of the population whose perceptions and state of mind are relevant to the issues in the case. Selection of the proper universe is a crucial step, for even if the proper questions are asked in a proper manner, if the wrong persons are asked, the results are likely to be irrelevant.

Relatedly, the first two (of seven) factors listed in the *Manual for Complex Litigation* are:⁴⁷

- (i) the population was properly chosen and defined; and
- (ii) the sample chosen was representative of that population.

40. For example, the survey universe should be neither underinclusive (*i.e.*, exclude relevant segments of the consumer population) nor overinclusive (*i.e.*, include the opinions of irrelevant consumer segments). Using an *underinclusive* universe biases the results by excluding relevant data, while using an *overinclusive* universe skews the results by introducing irrelevant data. Professor Diamond writes:⁴⁸

An overinclusive sampling frame generally presents less of a problem for interpretation than does an underinclusive sampling frame. If the survey expert can demonstrate that a sufficiently large (and representative) subset of respondents in the survey was drawn from the appropriate sampling frame, the responses obtained from that subset can be examined, and inferences about the relevant population can be drawn based on that subset. If the relevant subset cannot be identified, however, an overbroad sampling frame will reduce the value of the survey. **If the sampling frame does not include important groups in the target population, there is generally no way to know how the unrepresented members of the target population would have responded.** [Emphasis added. FNs omitted]

41. In each of his surveys, Mr. Sowers qualified for participation potential respondents who reported that they are likely to personally purchase **natural** [toothpaste / deodorant] in the next six months.⁴⁹ As discussed below, the Sowers Surveys misrepresented the consumer universe, and the key screening question was leading and improper.

⁴⁶ McCarthy (2007), §32:159. See also *Manual for Complex Litigation* (2004), p. 103.

⁴⁷ *Manual for Complex Litigation* (2004), p. 103.

⁴⁸ Diamond (2011), p. 379.

⁴⁹ See Sowers Report, Appendix D, pp. D-15 & D-38. Emphasis added.

42. *First*, the Sowers Surveys' universe is overly narrow and is underinclusive relative to the relevant consumer universe in this matter. As Dr. Jay writes: "The proper universe for a consumer perception survey usually consists of potential purchasers (or both past and potential purchasers) of the advertised product or service."⁵⁰ In the present litigation, the relevant consumer universe consists of prospective purchasers of *toothpaste* (for a survey intended to test Tom's toothpaste) and prospective purchasers of *deodorant* (for a survey intended to test Tom's deodorant). This is because prospective purchasers of the disputed Tom's toothpaste and deodorant products would *not* consist exclusively of those who buy only within a so-called "natural" category—which is itself an ill-defined, amorphous concept that is *not* uniformly interpreted or understood across consumers.⁵¹

43. Instead, as indicated by data reported in Tom's internal market research, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].⁵² [REDACTED]

[REDACTED].⁵³ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].

⁵⁰ Jay, E. Deborah (2013), "Ten Truths of False Advertising Surveys," *The Trademark Reporter*, 103(5), 1116 – 1171; p. 1121 (FNs omitted).

⁵¹ See Section H.1 of this *Rebuttal Expert Report* for further discussion on this point; see also Section B of my September 21, 2018 *Expert Declaration*.

⁵² See, e.g., COLGATETOMS00025858, p. 21

[REDACTED]

⁵³ See, e.g., COLGATETOMS00090325, p. 83

[REDACTED] COLGATETOMS00097229, p. 10

[REDACTED]. See also COLGATETOMS00088321, p. 26

44. In addition, any consumer who would consider purchasing the disputed Tom's toothpaste and deodorant products but who may *not* associate these products with "natural" would be (inappropriately) excluded from the Sowers Surveys. According to deposition testimony from Rob Robinson (Head of Brand and Digital Marketing at Tom's of Maine), many important attributes describe Tom's products, including such characteristics as, *inter alia*: characterized by corporate giving and social responsibility (e.g., status as a certified B Corp⁵⁴), environmentally friendly (e.g., sustainable, recyclable packaging, sustainable sourcing of ingredients), not tested on animals, conscientious, and transparent.⁵⁵ Thus, consumers who (would) purchase the disputed Tom's toothpaste and deodorant products but who view such products as embodying any of the aforementioned traits—as opposed to "natural"—would likely be (inappropriately) screened out from the Sowers Surveys, despite the fact that these consumers' perceptions are relevant to the research questions at issue.

45. Therefore, by surveying only prospective purchasers of *natural* toothpaste and *natural* deodorant, Mr. Sowers failed to include relevant data in this litigation. Given the sample's under-inclusiveness, such a flaw cannot be corrected or adjusted for.⁵⁶

46. *Second*, the Sowers Surveys' key screening question is leading and inappropriately "primes" (or cues) participants with the concept of "natural" prior to the main questionnaire. As Professor Diamond writes, beyond recruiting a representative

⁵⁴ Tom's of Maine is a certified B Corp; *see, e.g.*, Robinson Deposition, pp. 22 – 23. Certified B Corporations are those verified by B Lab based on how the company provides value for non-shareholding stakeholders, such as the local community and the environment; *see, e.g.*, <https://hbr.org/2016/06/why-companies-are-becoming-b-corporations>.

⁵⁵ Robinson Deposition, pp. 22 – 23, 36 – 37, & 48; *see also, e.g.*, <https://www.tomsofmaine.com/> (e.g., "the first of its kind recyclable toothpaste tube"); <https://www.tomsofmaine.com/our-promise/caring-for-the-planet/recyclable-tube>; <https://www.tomsofmaine.com/the-backstory>; July 7, 2022 interview with Michelle Tong, Senior Manager in Strategic Analytics at Colgate (with outside counsel, Bruce Pettig, also present on the call; hereinafter, "July 7, 2022 Interview"); July 11, 2022 interview with Justin Boudrow, Senior Brand Manager at Tom's, and Lindsey Seavey, Brand Manager at Tom's (with outside counsel, Bruce Pettig, also present on the call; hereinafter, "July 11, 2022 Interview").

⁵⁶ Diamond (2011), p. 379.

sample, screening questions must be written in a way that does not lead the participant or bias subsequent answers to the (main) survey's substantive questions.⁵⁷

The screening questions must be drafted so that they do not appeal to or deter specific groups within the target population, or convey information that will influence the respondent's answers on the main survey. For example, if respondents must be prospective and recent purchasers of Sunshine orange juice in a trademark survey designed to assess consumer confusion with Sun Time orange juice, potential respondents might be asked to name the brands of orange juice they have purchased recently or expect to purchase in the next 6 months. They should not be asked specifically if they recently have purchased, or expect to purchase, Sunshine orange juice, because this may affect their responses on the survey either by implying who is conducting the survey or by supplying them with a brand name that otherwise would not occur to them.

The content of a screening questionnaire (or screener) can also set the context for the questions that follow. In *Pfizer, Inc. v. Astra Pharmaceutical Products, Inc.*,¹¹⁸ physicians were asked a screening question to determine whether they prescribed particular drugs. The survey question that followed the screener asked "Thinking of the practice of cardiovascular medicine, what first comes to mind when you hear the letters XL?" The court found that the screener conditioned the physicians to respond with the name of a drug rather than a condition (long-acting). [FNs omitted]

47. Although the Sowers Surveys did not specifically screen participants based on their intention to purchase *Tom's* toothpaste or *Tom's* deodorant, the addition of the adjective "natural" as a category descriptor (*natural* toothpaste and *natural* deodorant) was highly likely to convey information that would influence responses to the main questionnaire. Mr. Sowers's key screener essentially imposed on participants a specific (and overly narrow) "definition" of the product category of interest, priming participants on the meaning or importance of "natural" prior to answering subsequent questions that inquired repeatedly about the "natural" concept. Thus, the Sowers Surveys' key screening question was highly likely to bias participants' answers to the open-ended and closed-ended "perception" questions (*i.e.*, Q.1 through Q.5), particularly after being presented with a (toothpaste or deodorant) product displaying the word "natural." In fact, as discussed in the next section, the "natural" concept was conspicuously highlighted to participants exposed to the Sowers Surveys' control stimuli.

⁵⁷ Diamond (2011), pp. 386 – 387.

48. *Third*, it is noteworthy that by only qualifying purchasers of *natural* toothpaste and *natural* deodorant, Mr. Sowers's resulting sample is likely skewed toward consumers who would be *most* sensitive to the surveys' leading stimuli and key perception questions. Compared to consumers who indicate that they intend to purchase "natural toothpaste" or "natural deodorant," consumers who simply intend to purchase toothpaste or deodorant (*including* a disputed Tom's toothpaste or deodorant): (i) are less likely to hold opinions (if they do at all) regarding the amount of "natural ingredients" contained in a toothpaste or deodorant; and (ii) are less likely to even pay attention, or attribute any meaning, to a "natural" claim. Hence, the Sowers Surveys' erroneous and underinclusive definition of the consumer universe likely artificially inflated the observed net "deception" estimates.

49. For the reasons above, the Sowers Surveys' data are unreliable and do *not* represent the perceptions of the relevant consumer universe in this litigation. Based solely on these flaws, even if all other aspects of the Sowers Surveys were proper (which they were *not*), the Sowers Surveys cannot be relied upon to reach any of Mr. Sowers's conclusions or likelihood of deception estimates.

E. THE SOWERS SURVEYS USED A FUNDAMENTALLY IMPROPER CONTROL

50. A fundamental principle of survey design is that a study designed to test for consumers' perceptions and likelihood of deception (and other such cause-effect experiments) must include a proper control.⁵⁸ A control is used to measure the extent of "noise" or "error" in the survey. That is, an estimate of a consumer perception at issue or the likelihood of deception (after accounting for "noise") can be derived by subtracting the control estimate from the corresponding estimate in the "test" group or "test" question. Without a proper control, there is no benchmark for evaluating whether the estimate of

⁵⁸ See, e.g., *id.*, pp. 397 – 401.

deception derived from the survey actually results from the packaging, advertisement, or claim(s) at issue or whether it results from factors other than that packaging, advertisement, or claim(s)—that is, “noise.” Such “noise” can arise from guessing behavior; participants’ lay theories, prior knowledge, and past experiences; leading survey procedures and questions; acquiescence bias and “yea-saying” tendencies; and/or any other flaws inherent in the survey’s methodology and (closed-ended) questions.⁵⁹

51. Notably, the control stimulus should be as similar as possible to the test stimulus but for the element at issue (here, the challenged “natural” claim). As Professor Diamond states regarding the construction of proper controls:⁶⁰

The general principle for choosing an appropriate control is easily stated: It should share as many characteristics with the experimental stimulus as possible, with the key exception of the characteristic whose influence is being assessed.

Similarly, the late Professor Jacoby indicated in a treatise on trademark surveys (which is also cited in the Sowers Report):⁶¹

Strong controls are those that maximize the similarity between the control stimulus and the test stimulus. [...] In contrast, weak controls are those that minimize the critical similarities between the test and control stimuli.

52. Thus, in a survey intended to test for the effect of a variable (e.g., a packaging or advertising statement) on consumers’ perceptions, as well as other such cause-effect experiments, the inclusion of a proper control group or a control question is critical.⁶² In both litigation and academic contexts, studies that fail to employ adequate controls are often rejected or excluded for that reason alone. One treatise, for example, characterizes a “survey without a control cell or with a fundamentally inadequate control

⁵⁹ See, e.g., Jay (2013), p. 1140; Rappeport, Mike (2012), “Design Issues for Controls,” in Diamond, Shari S. and Jerre B. Swann (eds.), *Trademark and Deceptive Advertising Surveys*, Chicago, IL: American Bar Association, pp. 220 – 221.

⁶⁰ Diamond (2012), p. 210.

⁶¹ Jacoby, Jacob (2013), “Settings, Stimuli, and Tasks,” in *Trademark Surveys: Designing, Implementing, and Evaluating Surveys (Vol. 1)*, Jacoby, Jacob (ed.), Chicago, IL: American Bar Association, p. 506.

⁶² See, e.g., Diamond (2011), pp. 397 – 401.

stimulus” as one of two “[...] flaws that should lead to survey exclusion without extensive analysis or data.”⁶³ The same treatise author further writes:⁶⁴

Nonetheless, surveys are still offered without a control cell or **with a fundamentally inadequate control stimulus**, and such surveys should be excluded or (in a bench trial) wholly discounted. One criterion for survey admissibility is that it have a known error margin, and without a scientific design and **a defensible control stimulus**, a survey cannot satisfy the reliability mandate. [Emphases added]

53. In each of his surveys, Mr. Sowers constructed a control (toothpaste or deodorant) package that consisted of replacing the challenged “natural” claim appearing on the test (toothpaste or deodorant) package’s front label with the following exaggerated control claim:⁶⁵

CONTAINS SOME NATURAL INGREDIENTS*

The control claim included an asterisk that referred to a (control) disclosure that appeared on the same package front label:⁶⁶

*contains one or more artificial ingredients

54. As explained next, the Sowers Surveys control stimuli are fatally flawed, and they do *not* serve as what Swann refers to as an adequate or defensible control.⁶⁷

55. Figures 4a and 4b below reproduce the front labels of the Tom’s “control” toothpaste and Tom’s “control” deodorant packaging stimuli as shown to participants in the Sowers Toothpaste Study and the Sowers Deodorant Study, respectively.

(Continues on next page)

⁶³ Swann (2012), pp. 373 – 374.

⁶⁴ *Id.*, p. 374; *see also* Diamond (2011), p. 401.

⁶⁵ *See, e.g.*, Sowers Report, ¶ 22.

⁶⁶ *See, e.g., ibid.* Note that the “control” claim and the “disclosure” language were also added to one of the sides of the toothpaste package; *see id.*, Appendix I, p. I-3.

⁶⁷ Swann (2012), p. 374.

Figure 4a: Front Label of the Sowers Toothpaste Survey's Control Package ⁶⁸



Figure 4b: Front Label of the Sowers Deodorant Survey's Control Package ⁶⁹



⁶⁸ See *id.*, Appendix I, p. I-3.

⁶⁹ See *id.*, p. I-6.

56. As Figures 4a and 4b above show, the “control claim” and “control disclosure” created by Mr. Sowers appeared conspicuously on both control products: (i) the “control claim” (“**CONTAINS SOME NATURAL INGREDIENTS***”) was written in fairly large UPPERCASE, **BOLD**, and **RED** lettering, with the word “**SOME**” underlined and with a prominent asterisk at the end; and (ii) the “control disclosure” (“*contains one or more artificial ingredients”) also appeared in red font and in a similar or even larger size fonts compared to multiple other representations displayed on the package front (*e.g.*, “anticavity toothpaste,” “clinically proven fresh breath | fights cavities,” “deodorant”). Both the “control claim” and the “control disclosure” appeared in a different font that distinguished them from the other letters and representations displayed on the front label.

57. The above “control” language and representations are particularly improper when considered in light of the original (allegedly deceptive) package shown to participants in the test group in each survey. Figures 5a and 5b below contrast how the “natural” claim appeared on the test versus control package, respectively, in the Sowers Toothpaste Survey,⁷⁰ while Figures 6a and 6b show the corresponding screenshots for the Sowers Deodorant Survey.⁷¹ As these screenshots make clear, the “natural” claim in the test (*i.e.*, original) packaging appeared in lowercase letters, in a non-bolded typeface, and in a color matching an adjacent phrase (*i.e.*, “with fluoride” and “odor protection”). By contrast, Mr. Sowers added to his control packaging an alternative “control claim” and “control disclosure” in which the word “natural” appears in *uppercase* letters, in *bolded* typeface, and in red lettering that does not match any adjacent phrase (or any other claims on the package).

⁷⁰ See *id.*, pp. I-1 & I-3.

⁷¹ See *id.*, pp. I-5 & I-6.

Figure 5a: Screenshot of Front Label of “Test” (Original) Tom’s Toothpaste Package



Figure 6a: Screenshot of Front Label of “Test” (Original) Tom’s Deodorant Package



Figure 5b: Screenshot of Front Label of “Control” (Revised) Tom’s Toothpaste Package



Figure 6b: Screenshot of Front Label of “Control” (Revised) Tom’s Deodorant Package



58. The Sowers Surveys’ exaggerated control stimuli, which caused the “control claim” and “control disclosure” to stand out against the white background of the control toothpaste and control deodorant packages, created a severe “focalism” bias (or “focusing illusion”).⁷² Seminal research in psychology has found evidence of such a bias, whereby survey participants are manipulated to focus on specific aspects, causing these aspects to receive more attention and weight than they do under real marketplace conditions. As a result, survey participants focus too much on the information that is presented to them and not enough on the effects of other information, which the researcher makes less salient or unavailable.⁷³

⁷² Schkade and Kahneman (1998); Kahneman et al. (2006); Wilson et al. (2000); *see also* Kivetz and Simonson (2000).

⁷³ *See, e.g.*, Schkade and Kahneman (1998); Kahneman et al. (2006); Wilson et al. (2000).

59. Importantly, the Sowers Surveys' control stimuli do *not* approach anything resembling a commercially viable product package. Both the language and visual appearance of the "control claim" and "control disclosure" are leading and sharply deviate from what consumers would typically (or even *could* plausibly) encounter in the marketplace. I visited multiple stores (including online websites) that carry personal care items such as the disputed products and observed the packaging of multiple brands in the toothpaste and deodorant categories. To the best of my knowledge, *no* toothpaste or deodorant product displays a "control claim" or "control disclosure" remotely resembling what control participants were shown in the Sowers Surveys. Mr. Sowers's "control" stimuli are therefore highly idiosyncratic and do *not* represent or approximate a scenario that prospective purchasers of the disputed products (*i.e.*, the class members) would have encountered in the actual marketplace.

60. Contrary to Mr. Sowers's claim, his test-control experimental design does *not* "isolate the influence of the 'natural' representation on the [toothpaste / deodorant] packaging".⁷⁴ Not only do the Sowers Surveys' test and control stimuli *both* contain the word "natural," but also the control packaging emphasizes the concept of "natural" and introduces an extraneous factor (confound) by suggesting, or imposing, a particular definition of "natural" (*i.e.*, in terms having no artificial ingredients) that participants may otherwise never have considered. Consequently, Mr. Sowers's test and control packages are *not* comparable, and any "noise" estimate derived based on the leading control stimuli would *not* be a valid or reliable baseline to "net out" from the corresponding test group estimate. By comparison, a proper control that does isolate the influence of the challenged "natural" claim could have shown participants a package of a Tom's toothpaste or deodorant from which the challenged "natural" claim is either (*i*) removed

⁷⁴ Sowers Report, ¶¶ 20 & 52.

(with *no* other change), *or (ii)* replaced with a similar, plausible, but *not* allegedly deceptive “control” claim.

61. The “control claim” and “control disclosure” in the Sowers Surveys are so prominent, exaggerated, and non-commercially viable that they force participants to notice, pay attention to, and attempt to interpret what the statements mean in the context of the survey. The severe focalism generated by such stimuli, combined with the surveys’ leading questions, made it trivial for participants to guess the “expected” answers.

62. Overall, the failure to include a proper control stimulus is a fatal flaw in the Sowers Surveys, rendering the net “deception” results invalid and unreliable. The fact that the Sowers Surveys relied on a leading, closed-ended question (as subsequently discussed in Section F) makes a proper control even more necessary. This is because a control stimulus is intended to help account for not only participants’ background knowledge, inattention, and guessing behavior, but also for flaws inherent the survey instrument itself, such as the leading nature of the closed-ended questions asked.⁷⁵ As I explain next, not only are the Sowers Surveys’ control stimuli improper and commercially *unviable*, but they exacerbated the exceedingly leading nature of the key closed-ended “perception” question (Q.5), which parroted the *identical language* of the “control claim” and nearly the same language of the “control disclosure” displayed on the control packaging.

(Continues on next page)

⁷⁵ See, e.g., Rapaport (2012); Jacoby, Jacob (2013), “The Fundamental of Scientific Research,” Ch. 4, in *Trademark Surveys: Designing, Implementing, and Evaluating Surveys (Vol. 1)*, Jacoby, Jacob (ed.), Chicago, IL: American Bar Association, p. 221 (“[C]ontrol questions typically are comparable in form to test questions and designed to provide direct comparisons between the respondents [*sic*] answers to the test question and his or her answers to the control question. Controls are what enable us to estimate error rates, a requirement of *Daubert*.”).

F. THE SOWERS SURVEYS RELIED ON A LEADING CLOSED-ENDED QUESTION (Q.5) THAT GENERATED SEVERE DEMAND EFFECTS AND FOCALISM, WHILE FAILING TO TEST THE PLAINTIFFS' THEORY OF DECEPTION

63. A survey conducted in the context of litigation, like any scientific survey, must be constructed and implemented in a manner that is objective and does not favor a particular position or a party to a dispute, including the one on whose behalf the survey is conducted.⁷⁶ For example, as Professor McCarthy notes,⁷⁷ a survey must use non-leading and unbiased survey questions. Doing so is necessary to avoid severe demand effects and focalism, which bias upward the estimated deception rates.

64. A leading question or survey procedure suggests to participants particular answers, thus creating a bias and producing invalid results. Indeed, seminal research shows that people's survey responses are often distorted based on the survey context and on leading phrases and questions.⁷⁸ Participants' reactions to leading survey questions can reflect a number of background considerations (e.g., social desirability concerns) and

⁷⁶ See, e.g., *Manual for Complex Litigation* (2004), p. 103.

⁷⁷ McCarthy, J. Thomas (2007), *McCarthy on Trademarks and Unfair Competition* (McCarthy), §32:172; see also *Manual for Complex Litigation* (2004), p. 103.

⁷⁸ Kahneman, Daniel and Amos Tversky (1981), "The Framing of Decisions and the Psychology of Choice," *Science*, 211(4481), 453 – 458; Loftus, Elizabeth and Guido Zanni (1975), "Eyewitness Testimony: The Influence of the Wording of a Question," *Bulletin of the Psychonomic Society*, 5(1), 86 – 88. For a review, see Weinberg, Howard I., John Wadsworth, and Robert S. Baron (1983), "Demand and the Impact of Leading Questions on Eyewitness Testimony," *Memory & Cognition*, 11(1), 101 – 104. For example, Dr. Loftus and her colleagues studied the impact of question wording on subsequent eyewitness testimony. Consider an eyewitness who is asked one of two question versions: (i) How fast were the cars going when they contacted? or (ii) How fast were the cars going when they smashed? Loftus and colleagues showed that the latter phrasing produced higher speed estimates. E.g., Loftus, Elizabeth, Diane Altman, and Robert Geballe (1975), "Effects of Questioning Upon a Witness' Later Recollections," *Journal of Police Science and Administration*, 3(2), 162 – 165; Loftus and Zanni (1975); Loftus, Elizabeth (1975), "Leading Questions and the Eyewitness Report," *Cognitive Psychology*, 7, 550 – 572; Loftus, Elizabeth and John C. Palmer (1974), "Reconstruction of Automobile Destruction: An Example of the Interaction between Language and Memory," *Journal of Verbal Learning and Verbal Behaviour*, 13, 585 – 589. In another such study, observers estimated the duration of an event they had themselves experienced two weeks earlier (a person disrupting a university class). Participants who were asked to estimate how long it took the person to *walk* through the class as opposed to *run* through the class gave longer duration estimates. Burt, Christopher D. and Jennifer S. Popple (1996) "Effects of Implied Action Speed on Estimation of Event Duration," *Applied Cognitive Psychology*, 10(1), 53 – 63.

guessing behavior,⁷⁹ whereas the true influence, if any, of various representations and disclaimers in the actual marketplace is difficult for survey participants to accurately identify, predict, and verbalize.⁸⁰

65. Relatedly, a fundamental survey principle is that a survey must avoid creating strong “demand effects” (or “demand characteristics”), whereby survey participants use cues provided by the survey’s questions, answer choices, and/or stimuli to figure out the purpose of the study and provide the answers expected by the researcher.⁸¹ Such demand effects, which often arise from leading survey questions, stimuli, and procedures, produce predictable and biased responses.⁸² Courts have recognized the importance of demand effects, and such problems have contributed to the rejection and criticisms of surveys.⁸³

66. As explained in the following subsections, the Sowers Surveys’ methodology violated the aforementioned survey principles. Despite asking three open-ended (albeit flawed) questions, Mr. Sowers relied *solely* on results obtained from a leading and severely flawed “perception” question to measure consumer “deception.”

⁷⁹ See, e.g., Fiske, Susan T. and Shelley E. Taylor (1991), *Social Cognition* (2nd ed.), New York, NY: McGraw-Hill.

⁸⁰ See, e.g., Nisbett, Richard E. and Timothy D. Wilson (1977), “Telling More Than We Can Know: Verbal Reports on Mental Processes,” *Psychological Review*, 84(3), 231 – 259; Wilson, Timothy D. and Daniel T. Gilbert (2003), “Affective Forecasting,” in *Advances in Experimental Social Psychology Vol. 35*, Zanna, Mark P. (ed.), San Diego, CA: Elsevier, pp. 345 – 411; Wilson, Timothy D. and Jonathan W. Schooler (1991), “Thinking Too Much: Introspection Can Reduce the Quality of Preferences and Decisions,” *Journal of Personality and Social Psychology*, 60(2), 181 – 192.

⁸¹ See, e.g., Orne (1962); Darley and Lim (1993); see also Simonson and Kivetz (2012). In the doctoral courses that I teach at Columbia University, I spend considerable time analyzing the conditions that produce demand effects. Demand effects are particularly problematic when a survey’s design, questions, answer choices, and/or stimuli presentation: (i) suggest the expected answer; and/or (ii) cause participants to consider or ignore claims, stimuli, and other aspects that they would not have considered or would have ignored outside the context of the study.

⁸² See Simonson and Kivetz (2012).

⁸³ See, e.g., *Simon Property Group L.P. v. MySimon, Inc.*, 104 F. Supp. 2d 1033; 2000, U.S. Dist. S.D. Indiana; *Kargo Global, Inc. v. Advance Magazine Publishers, Inc.*, “Opinion & Order,” 06 Civ. 550 (U.S. SDNY; Aug. 2007); *Government Employees Insurance Company v. Google Inc., et al.*, East. Dist. of Virginia, 2005 U.S. Dist. LEXIS 18642; 77 U.S.P.Q.2D (BNA) 1841; *THOIP v. The Walt Disney Co. et al.*, OPINION AND ORDER, (08 Civ. 6823; S.D. NY; Feb. 2010).

This closed-ended question created severe demand and focalism biases, and was akin to a trivial, even circular (tautological), “matching” test. This leading question focused participants on the researcher’s hypothesis, while failing to represent multiple alternative interpretations or meanings of “natural” (including Tom’s definition). Further, Mr. Sowers’s key closed-ended “perception” question failed to test the Plaintiffs’ allegations regarding what reasonable consumers may understand “natural” to mean in the context of oral care and personal care products. Because the Sowers Surveys are uninformative, they do not provide a reasonably reliable basis from which an expert in the field could approximate the proportion of consumers who are allegedly deceived by the challenged “natural” claim.

F.1. Mr. Sowers Relied Solely on a Closed-Ended Question to Measure Perceptions of the Challenged “Natural” Claim

67. The standard methodology of most perception studies is to start with general questions about the topic of interest or about the messages communicated by the package or advertisement, and only then proceed with gradually more pointed *open-ended and non-leading* questions that inform the researcher about consumers’ perceptions or beliefs with regard to the issues being investigated.⁸⁴

68. Rather than using an open-ended key perception question (such as Q.4 in the Sowers Surveys) as the basis for estimating a likelihood of deception, Mr. Sowers’s “findings” regarding consumer deception relied on a single *closed-ended* question (Q.5). In Question 5, participants were prompted to consider which of three statements matches their supposed belief about the product based on a previously-shown (test or control) toothpaste or deodorant package:⁸⁵

⁸⁴ See also, e.g., Keller, Bruce P. (2012), “Survey Evidence in False Advertising Cases,” in Diamond, Shari S. and Jerre B. Swann (eds.), *Trademark and Deceptive Advertising Surveys*, Chicago, IL: American Bar Association.

⁸⁵ See Sowers Report, Appendix D, pp. D-23 & D-43.

Q.5 Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?

- Contains only natural ingredients (i.e., no artificial ingredients)
- Contains some natural ingredients and some artificial ingredients
- Contains no natural ingredients (i.e., only artificial ingredients)
- No opinion
- Don't know/Unsure

69. Mr. Sowers concludes from *solely* Question 5's data that a "substantial proportion of relevant consumers"⁸⁶ were deceived into believing that the disputed Tom's products contained *only* "natural ingredients (i.e., no artificial ingredients)"⁸⁷ when the products allegedly contained one or more "ingredients that are synthetic or chemically processed."⁸⁸

70. In many cases, closed-ended questions have a disadvantage (compared to open-ended questions) because the closed-ended questions give participants hints about the answers that are expected or preferred.⁸⁹ The answer choices provided in a closed-ended question—as well as the topics raised in a set of closed-ended questions—can steer participants toward or away from a particular answer, and can prompt participants to report perceptions or opinions (offered as answer choices) that are not actually formed or held by consumers in the marketplace.

71. Accordingly, many courts often prefer open-ended questions based on the notion that such questions are less leading, less susceptible to demand effects, and more likely to elicit participants' spontaneous perceptions and opinions. In a chapter from a survey treatise on trademark and deceptive advertising surveys, Keller explains:⁹⁰

One of the most common problems in surveys is leading questions, which "suggest[] an answer." One way to avoid suggestive or leading questions is to ask open-ended questions, which require respondents to formulate answers in their own words. Although courts prefer open-ended questions because they tend to be less leading, the value of these questions depends on the information the survey is designed to elicit. [FNs omitted]

⁸⁶ Sowers Report, ¶ 10.

⁸⁷ *Ibid.*

⁸⁸ *E.g., id.*, ¶ 20.

⁸⁹ *E.g.*, Diamond (2011), pp. 391 – 394.

⁹⁰ Keller (2012), p. 189.

Professor Diamond discusses the following weakness of closed-ended questions:⁹¹

[...] the survey can ask all respondents to answer the question (e.g., “Did you understand the guarantee offered by Clover to be a 1-year guarantee, a 60-day guarantee, or a 30-day guarantee?”). **Faced with a direct question, particularly [a closed-ended] one that provides response alternatives, the respondent obligingly may supply an answer** even if (in this example) the respondent did not notice the guarantee ... Such answers will reflect only what the respondent can glean from the question, or they may reflect pure guessing. [Emphasis added]

72. Critically, the results attained from closed-ended questions may be misleading and biased if the list of answer choices provided is incomplete (as it was in the Sowers Surveys; *see* Subsection F.3 below). As Professor Diamond cautions:⁹²

Closed-ended questions have some additional potential weaknesses that arise if the choices are not constructed properly. If the respondent is asked to choose one response from among several choices, the response chosen will be meaningful only if the list of choices is exhaustive—that is, if the choices cover all possible answers a respondent might give to the question. If the list of possible choices is incomplete, a respondent may be forced to choose one that does not express his or her opinion. [FN omitted]

73. It is noteworthy that unlike Question 5, the Sowers Surveys’ Question 4 *does* ask participants, using an *open-ended* question, what the product packaging they were shown communicated “about whether or not the [toothpaste / deodorant] is natural” (among those who indicated that the packaging did communicate something about whether or not the [toothpaste / deodorant] is natural).⁹³ However, rather than relying on participants’ responses to this open-ended question—which reflect their spontaneous impressions on the topic—Mr. Sowers (inexplicably) fails to report *any* results obtained from this question, and instead jumps directly to the results of Question 5 when forming his conclusions.⁹⁴

74. Finally, concerns regarding closed-ended questions are particularly heightened when the survey does *not* include an adequate control stimulus that can serve as a benchmark for evaluating the obtained estimates and for accounting for the biases

⁹¹ *Id.*, pp. 389 – 390.

⁹² Diamond (2011), p. 393.

⁹³ *See* Sowers Report, Appendix D, pp. D-23 & D-43.

⁹⁴ I discuss Mr. Sowers’s omission of these results from his report in Subsection G.1.

inherent in the survey's methodology. Mr. Sowers failed to use a proper survey control (*see* Section E); as discussed next, this deficiency exacerbated the already leading character of the Sowers Surveys' closed-ended "perception" question.

F.2. The Sowers Surveys' Key Closed-Ended "Perception" Question is a Trivial and Leading "Matching" Test

75. The Sowers Surveys' closed-ended Question 5 is leading and induces severe demand and focalism biases, particularly when combined with the test and control packaging shown to survey participants. Recall that—after being primed with a screener question that asked about "natural [toothpaste / deodorant],"⁹⁵ control participants were exposed to a Tom's package in which the "control claim" ("CONTAINS SOME NATURAL INGREDIENTS*")⁹⁶ and the "control disclosure" ("*contains one or more artificial ingredients")⁹⁷ appeared conspicuously on the front label, the default view presented to participants in Mr. Sowers's survey interface (*see, e.g.*, Figure 5 below):

Figure 5: Front Label of the Sowers Toothpaste Survey's Control Package⁹⁸



76. Then, after answering the "main message" and "other messages" open-ended questions (Q.1 – Q.2),⁹⁹ participants were directly asked whether the package

⁹⁵ See Sowers Report, Appendix D, pp. D-15 & D-38. Emphasis added.

⁹⁶ See, e.g., Sowers Report, ¶ 22 (emphasis in the original).

⁹⁷ See *ibid.*

⁹⁸ See *id.*, Appendix D, p. D-9.

⁹⁹ See *id.*, pp. D-22 & D-42.

communicated anything about “whether or not the toothpaste is natural” (Q.3),¹⁰⁰ and those who answered in the affirmative were shown the following pair of questions, one open-ended (Q.4) and one closed-ended (Q.5):¹⁰¹

Q.4 What did the product packaging communicate about whether or not the [toothpaste / deodorant] is natural?

Don’t know/Unsure

Q.5 Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?

- Contains only natural ingredients (i.e., no artificial ingredients)
- Contains some natural ingredients and some artificial ingredients
- Contains no natural ingredients (i.e., only artificial ingredients)
- No opinion
- Don’t know/Unsure

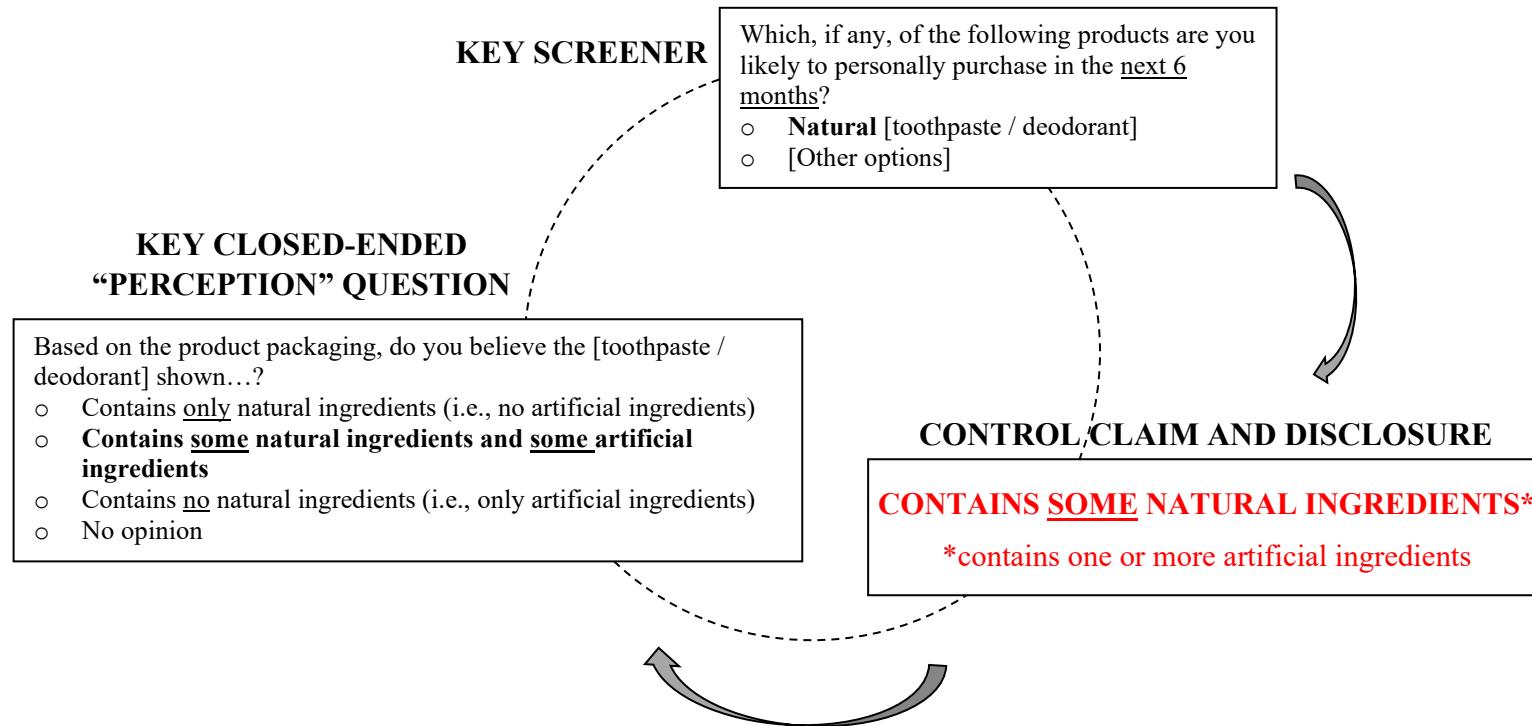
77. The above sequence of stimuli presentation, as well as question phrasing, is leading and—in particularly in the case of the control group—circular (*see* Figure 6 below).

(Continues on next page)

¹⁰⁰ See *id.*, pp. D-23 & D-43. Note that although I focus on the Sowers Surveys’ Question 5 in this *Rebuttal Expert Report*, Questions 3 and 4 are flawed in their own right. For example, these questions failed to ask whether the product packaging communicated anything about “natural” *to the participant*, and instead asked only what the product packaging communicated in general. Thus, participants’ responses do not necessarily reflect their personal perceptions of the product packaging, but rather can reflect what they think other consumers believe. Such a projective methodology can exacerbate guessing behavior and demand effects, with participants being led by the survey cues to select the “expected” answer. Academic research has demonstrated that consumers (and sometimes even experts and marketing executives) are unable to reliably project or forecast the perceptions and preferences of *others*; *see, e.g.*, Armstrong, J. Scott (1991), “Prediction of Consumer Behavior by Experts and Novices,” *Journal of Consumer Research*, 18(2), 251 – 256; Hoch, Stephen J. (1988), “Who Do We Know: Predicting the Interests and Opinions of the American Consumer,” *Journal of Consumer Research*, 15(3), 315 – 324.

¹⁰¹ See Sowers Report, Appendix D, pp. D-23 & D-43.

Figure 6: The Sowers Surveys' Circular Methodology ¹⁰²



¹⁰² See *id.*, Appendix D, p. D-9.

78. As Figure 6 illustrates, control participants were essentially faced with a trivial “matching” (or “reading comprehension”) test, in which they could easily match the “correct” answer choice in Question 5 to the control package they were shown—specifically the answer choice that parroted the “control claim” and “control disclosure” language on the front label. That is, participants who indicated that they are likely to purchase “natural [toothpaste / deodorant]” were ultimately asked to opine on whether a (toothpaste or deodorant) package—which prominently displayed the text “**CONTAINS SOME NATURAL INGREDIENTS***” and “*contains one or more artificial ingredients”¹⁰³—in fact “contains some natural ingredients and some artificial ingredients.” Such a “matching” task is a textbook example of a circular and leading methodology and question whose responses cannot be used to derive valid and reliable deception estimates.

79. The responses from the Sowers Surveys’ test group participants are also uninformative, as these participants were similarly led by the survey to place weight on the concept of “natural,” to parrot back the word “natural” when asked what the packaging communicates about whether or not the product is natural, and to select the option (in Q.5) suggested as most congruent with the question—namely, “contains only natural ingredients (i.e., no artificial ingredients).” Mr. Sowers never tested what meanings or interpretations, if any, participants took away from the words “natural” or “natural ingredients.” Thus, the results from the Sowers Surveys’ test and control groups are merely the artifacts of a leading methodology that does not and cannot provide any scientific evidence of the deception alleged in this matter.

¹⁰³ See, e.g., Sowers Report, ¶ 22 (emphasis in the original).

F.3. The Sowers Surveys' Key Closed-Ended "Perception" Question (Q.5) Focused Participants on the Researcher's Hypothesis and Failed to Represent Multiple Alternative Interpretations of "Natural" (Including Tom's Position)

80. Beyond its circularity and "matching test" nature, Mr. Sowers's closed-ended Question 5 also provides a textbook example of demand effects by focusing participants on a narrow hypothesis and an expected answer.¹⁰⁴ That is, the Sowers Surveys strongly communicated to participants that: (i) the variable of interest, "natural," must be defined in terms of containing "natural ingredients" (framed by the Sowers Survey as the opposite of "artificial ingredients"); and (ii) the "expected" answer to the question is the one that confirms the researcher's hypothesis (*i.e.*, that a package that says "CONTAINS SOME NATURAL INGREDIENTS" must "contain some natural ingredients and some artificial ingredients," while a package that says "natural" must "contain only natural ingredients").¹⁰⁵ Otherwise, from a participant's perspective, the question would not have focused on these specific interpretations (and no other interpretations) in the first place.

81. The Sowers Surveys also generated demand effects by artificially constraining the set of plausible perceptions or opinions that participants could express. Recall that Question 5's answer choices consisted of three (substantive) answer choices, a "No opinion" option, and a "Don't know/Unsure" option:¹⁰⁶

Q.5 Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?

- Contains only natural ingredients (*i.e.*, no artificial ingredients)
- Contains some natural ingredients and some artificial ingredients
- Contains no natural ingredients (*i.e.*, only artificial ingredients)
- No opinion
- Don't know/Unsure

82. Instead of testing what perceptions or interpretations (if any) participants voluntarily form from the challenged "natural" claim appearing on a realistic packaging

¹⁰⁴ Diamond (2011), pp. 389 – 390.

¹⁰⁵ Sowers Report, Appendix D, pp. D-23 & D-43.

¹⁰⁶ See *ibid.*

stimulus, the Sowers Surveys prompted (or forced) participants to draw an extremely limited (*i.e.*, essentially *one*) conclusion. It is noteworthy that although “don’t know” or “no opinion” options can reduce some participant guessing, their inclusion does *not* remove the systematic “noise” due to flaws in the survey itself, such as leading questions and biased research designs (as is true of the Sowers Surveys).¹⁰⁷ Academic research on conversational norms has found that participants typically want to be helpful and knowledgeable; therefore, they tend to avoid “don’t know,” “not sure,” and “no opinion” responses and try instead to select (or guess) the “expected” answers.¹⁰⁸ Such a pattern is especially likely if a question is phrased in a leading way. In the case of the Sowers Surveys, participants encountering Question 5 and its narrow set of interpretations (as well as the survey’s stimuli) would have found it trivial to glean from the survey the researcher’s “expected” answer.

83. In fact, Question 5 did not even include an option such as “contains mostly natural ingredients” or “contains almost all natural ingredients.” The question is particularly egregious given that Mr. Sowers failed to even provide an answer choice such as “some other opinion/s or belief/s (please specify),” which could have allowed participants to describe different opinions from the one suggested to them by the question. Critically, the Sowers Surveys’ closed-ended “perception” question failed to include multiple other possible perceptions or interpretations of the “natural” claim, including those that represent Tom’s definition. Mr. Sowers did not test or allow participants to express multiple plausible interpretations of “natural” such as, *inter alia*: derived from a natural element such as a plant, mineral, or water source; sustainability, recyclability, and environmental friendliness; simplicity; few ingredients; similarity to

¹⁰⁷ See, *e.g.*, Diamond (2012).

¹⁰⁸ See, *e.g.*, Grice, H. Paul (1975), “Logic and Conversation,” in *Syntax and Semantics 3: Speech Acts*, Cole, Peter and Jerry L. Morgan (eds.), New York, NY: Academic Press, pp. 41 – 58; Schwarz, Norbert (1994), “Judgment in Social Context: Biases, Shortcomings, and the Logic of Conversation,” *Advances in Experimental Social Psychology*, 26, 123 – 162.

old-fashioned or traditional products; no artificial fragrances; no artificial colors; no animal testing; no parabens; no aluminum; minimal or less processing; and/or a lower likelihood of provoking allergic reactions.

84. For example, on the disputed Tom's toothpaste package tested in the Sowers Toothpaste Survey (*i.e.*, Tom's Wicked Fresh!® Anticavity Toothpaste: Cool Peppermint),¹⁰⁹ multiple other claims and representations also appear that may influence and guide how consumers interpret the word “natural” in the context of Tom's toothpaste, including, *inter alia*:¹¹⁰

- “with fluoride”
- “no artificial dyes or sweeteners”
- “Our Stewardship Model, with standards for natural, sustainable, and responsible, guides every decision we make about our ingredients, processing, and packaging. To learn more about our Stewardship Model, and what ‘natural’ means at Tom's of Maine visit www.tomsofmaine.com”
- “**What makes a product natural and good? At Tom's, it includes how we make it**”
- “**No** animal testing”
- “We share every **ingredient**, its **purpose**, and its **source** at www.tomsofmaine.com”
- “**Sustainable practices** are a priority in every aspect of our business”
- “**No** artificial colors, flavors, fragrance, or preservatives”
- “**We strive to maximize recycled content and recyclability** of our packaging”

¹⁰⁹ See, e.g., Sowers Report, Appendix I, p. I-1 – I-2. Note that the current-selling products of this variant use a different packaging; see, e.g., <https://www.tomsofmaine.com/products/oral-care/wicked-fresh-toothpaste/cool-peppermint>.

¹¹⁰ *Ibid.* Emphases in the original packaging. Similar representations, along with “No aluminum” and “No artificial fragrance or preservatives,” appear on the Tom's Long Lasting Soothing Calendula deodorant package tested in the Sowers Deodorant Survey; see, e.g., Sowers Report, Appendix I, p. I-5.

- “5% (12 days) of employee time to volunteering. 10% of profits to human and environmental goodness”
- “Goodness = Less in Landfills”
- The list of ingredients (“Drug Facts”) on one of the package sides, indicating the “active ingredient” (Sodium monofluorophosphate) and “inactive ingredients” (glycerin, water, calcium carbonate, xylitol, hydrated silica, sodium lauryl sulfate, natural flavor*, carrageenan, benzyl alcohol, *Glycyrrhiza uralensis* (licorice) root extract)¹¹¹

85. Notably, many of the aforementioned potential interpretations of “natural” are not only unrelated to the alleged consumer misperception (*i.e.*, that the disputed products do not contain any synthetic or chemically-processed ingredients) but also to the amount of any specific ingredient or type of ingredient. Thus, for example, participants who perceived that “natural” does *not* relate to the amount of “natural ingredients” (vs. “artificial ingredients”) contained in a product, but instead relates to another concept, were *completely prevented* in the Sowers Surveys’ Question 5 from expressing such an opinion. Such participants had *no* way of indicating that they believed something else other than the leading, biased, and narrowly conceived list of answer choices provided by Mr. Sowers.

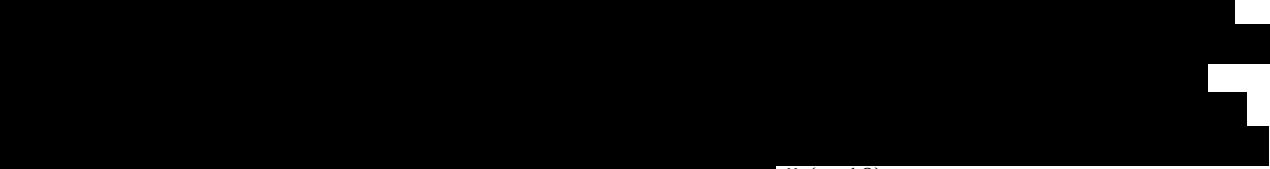
86. Indeed, academic and industry research indicate that consumers’ interpretations of a “natural” claim in the context of toothpaste and deodorant products are likely to be myriad, ill-defined, context-dependent,¹¹² and heterogeneous across

¹¹¹ The asterisk corresponding to “natural flavor” indicates: “*peppermint oil and other natural flavor”; *id.*, p. I-2.

¹¹² Abundant scientific research demonstrates that consumers’ interpretations of messages and marketing claims are sensitive to the context in which these messages and claims are conveyed; *see, e.g.*, Anderson, John R. (1985), *Cognitive Psychology and its Implications*, New York, NY: W.H. Freeman and Company; Peter and Olson (2008); Kivetz, Ran, Oded Netzer, and V. Srinivasan (2004a), “Alternative Models for Capturing the Compromise Effect,” *Journal of Marketing Research*, 41(3), 237 – 257 (Lead article) (*Finalist, 2009 William O’Dell Award; Finalist, 2005 Paul Green Award*); Simonson, Itamar and Amos Tversky (1992), “Choice in Context: Tradeoff Contrast and Extremeness Aversion,” *Journal of Marketing Research*, 29(3), 281 – 295; Kivetz, Netzer, and Srinivasan (2004b). That is, the context provided by the various images, claims, and textual messages shown on the disputed Tom’s packages is likely to guide consumers’ perceptions and understandings of the challenged “natural” claim.

consumers.¹¹³ That is, consumers are likely to vary in their understanding of the challenged “natural” claim and would *not* commonly perceive the claim to mean that the disputed products do not contain any synthetic or chemically-processed ingredients.¹¹⁴ In fact, given that packaging representations such as “natural” are non-specific and require additional inference-making for consumers to determine what exactly is meant by this claim, many consumers may not attach *any* meaning to the challenged “natural” claim. Multiple scientific research studies indicate that consumers often do not form such elaborate inferences and do not tend to impute a meaning for product information that is non-specific or missing.¹¹⁵ Academic and industry research also suggest that consumers often distrust or are skeptical of “natural”-type product claims.¹¹⁶

¹¹³ See, e.g., Kardes, Frank R., Steven S. Posavac, and Maria L. Cronley (2004), “Consumer Inference: A Review of Processes, Bases and Judgment Contexts,” *Journal of Consumer Psychology*, 14(3), 230 – 256; Helson, Harry (1948) “Adaptation-Level as a Basis for a Quantitative Theory of Frames of Reference,” *The Psychological Review*, 55(60), 297 – 313; Olson, Jerry C. and Philip A. Dover (1979) “Disconfirmation of Consumer Expectations Through Product Trial,” *Journal of Applied Psychology*, 64(2), 179 – 189. See also COLGATETOMS00189589



.” (p. 18).

¹¹⁴ See Section B of my September 21, 2018 *Expert Declaration*.

¹¹⁵ See, e.g., Kivetz and Simonson (2000); Simmons, Carolyn J. and John G. Lynch, JR. (1991), “Inference Effects without Inference Making? Effects of Missing Information on Discounting and Use of Presented Information,” *Journal of Consumer Research*, 17(4), 477 – 491. Other studies have demonstrated that consumers are even less likely to speculate (make inferences) regarding unspecified or incomplete information when they spend less cognitive effort. See, e.g., Kivetz and Simonson (2000); Cacioppo, John T. and Richard E. Petty (1982), “The Need For Cognition,” *Journal of Personality and Social Psychology*, 42(1), 116 – 131; Cacioppo, John T., Richard E. Petty, Jeffrey A. Feinstein, and W. Blair G. Jarvis (1996), “Dispositional Differences in Cognitive Motivation: The Life and Times of Individuals Varying in Need For Cognition,” *Psychological Bulletin*, 119(2), 197 – 253; Hoyer (1984).

¹¹⁶ Amos, Clinton, Iryna Pentina, Timothy G. Hawkins, and Natalie Davis (2014), “Natural Labeling and Consumers’ Sentimental Pastoral Notion,” *Journal of Product & Brand Management*, 23(4/5), 268 – 281; Hartman Group (2010), “Beyond Organic and Natural: Resolving Confusion in Marketing Food and Beverages”, Hartman Group Syndicated Study, February 2010; Nielsen (2012), “Battle of the Bulge & Nutrition Labels: Healthy Eating Trends Around the World,” Nielsen Report. Indeed, prior research has demonstrated that the highest levels of consumer skepticism occur for subjective claims that are difficult for the consumer to verify at the time of choice; see, e.g., Ford, Gary T., Darlene B. Smith, & John L. Swasy (1990), “Consumer Skepticism of Advertising Claims: Testing Hypotheses from Economics of Information,” *Journal of Consumer Research*, 16(4), 433 – 441. In this litigation, the challenged “natural”

87. Despite heterogeneity in consumer perceptions of the challenged “natural” claim, the Sowers Surveys’ key closed-ended question—which forms the sole basis for Mr. Sower’s conclusions about likelihood of deception—failed to test for these alternative interpretations. Consider, for example, a consumer who does not pay attention to, or form any belief about, the challenged “natural” claim when making a purchase (*e.g.*, because that consumer instead chooses toothpastes and deodorants based on brand, other package representations and images, or other product benefits and attributes). Consider also another consumer who forms an interpretation of the challenged “natural” claim that is different from the alleged misperception (*e.g.*, a consumer who believes that “natural” means sustainably sourced). Both consumers, when faced with Mr. Sowers’s biased and leading closed-ended “perception” question (Q.5), would nevertheless be led by the question and its answer choices to choose Mr. Sowers’s “expected” answer.

88. Overall, the Sowers Surveys’ Question 5 is leading, violates basic principles of survey design and, in combination with the fundamentally inadequate and biased control stimuli, effectively predetermines (or guarantees) the surveys’ “findings.” The biased list of answer choices offered by Mr. Sowers unrealistically focused on only one research hypothesis (*i.e.*, what Mr. Sowers represents as the Plaintiff’s hypothesis). Relatedly, the question and its answer choices gave rise to a severe demand effect by activating concepts and associations in participants’ minds that they otherwise would not have considered (*e.g.*, that “natural” must relate to the amount of “natural ingredients” contained in a product). By the time participants reached the final and key question, Q.5, they had already been repeatedly cued in three prior questions (*i.e.*, QS.6, Q.3, and Q.4) to think about “natural”; they had been shown a product package—in both the test and

claim is likely to be perceived as a subjective attribute by many consumers, given the lack of an established definition or certification process (as opposed to an “organic” representation). Consumers are, consequently, more likely to be skeptical of the challenged “natural” packaging claim compared to other claims that are more objective (*e.g.*, “gluten free”).

control groups—with the “natural” word appearing on it; and they had been primed to base their understanding of what “natural” meant on the amount of “natural” (vs. “artificial”) ingredients supposedly contained in the product.

89. To see how leading, circular, and invalid the Sowers Surveys’ methodology is, it is illustrative to examine the following thought experiment. Consider a scenario in which Mr. Sowers were to show *test* group participants a Tom’s package in which the word “pretty” appears in lieu of “natural,” and had shown *control* group participants the same Tom’s package except with the corresponding “control claim” and “control disclosure” appended to the front label:

CONTAINS SOME PRETTY INGREDIENTS*

*contains one or more ugly ingredients

90. Suppose that, in lieu of his Question 5, Mr. Sowers were to ask all participants a nearly-identical closed-ended question, in which the words “natural” and “artificial” are replaced with the words “pretty” and “ugly”:

Q.5 Based on the product packaging, do you believe the [toothpaste / deodorant] shown...?

- Contains only pretty ingredients (i.e., no ugly ingredients)
- Contains some pretty ingredients and some ugly ingredients
- Contains no pretty ingredients (i.e., only ugly ingredients)
- No opinion
- Don’t know/Unsure

The hypothetical survey described above would likely yield similar results as those described in the Sowers Report, with more participants in the test (compared to control) group selecting the “Contains only pretty ingredients (i.e., no ugly ingredients)” answer choice. Hence, the design of the Sowers Surveys is so biased and leading that the same pattern of “findings” would be obtained irrespective of the actual claim being shown (even a nonsensical one such as “pretty”) and *regardless* of any real perceptions that consumers hold in the actual marketplace.

F.4. The Sowers Surveys' Key Closed-Ended "Perception" Question (Q.5) Failed to Test the Plaintiffs' Theory of Deception

91. Its leading nature notwithstanding, the Sowers Surveys' closed-ended "perception" question (Q.5) also failed to test the Plaintiff's theory of deception. In the present matter, the Plaintiff accuses the disputed Tom's toothpaste and deodorant products as misleading consumers because they are labeled as "natural" when the products allegedly contain synthetic or chemically processed ingredients (*e.g.*, sodium lauryl sulfate [SLS] and propylene glycol).¹¹⁷ This is also echoed by Mr. Sowers, who states in his report that "Plaintiffs allege that the 'natural' representation is misleading **because the product contains ingredients that are synthetic or chemically processed.**"¹¹⁸

92. Mr. Sowers then continues to describe his analysis of Question 5, upon which he bases his estimation of the likelihood of consumer deception:¹¹⁹

Therefore, survey respondents who indicated in Q5 that, based on the product packaging, they believe the toothpaste product "contains only natural ingredients (*i.e.*, no artificial ingredients)" are counted as deceived.

93. However, the above method of "counting" participants *presumes* deception and does *not* actually test the Plaintiffs' specific theory of consumer deception. This is because: (*i*) the Sowers Surveys' Question 5 did not elicit participants' opinions regarding whether they believe that the Tom's product does not contain any synthetic or chemically-processed ingredients (nor do participants' responses to any of the survey's three open-ended questions indicate any such perceptions; *see* Subsection G.2); (*ii*) more generally, the Sowers Surveys never tested what participants believe "natural" means to them; and (*iii*) even if the Sowers Surveys' Question 5 were to demonstrate that an appreciable proportion of consumers believe the Tom's product has *only* "natural ingredients" (which the surveys did *not*, given the surveys' multiple fatal flaws and biases detailed in the preceding subsections), such a finding would still *not* support the

¹¹⁷ *See, e.g.*, Class Certification Motion, pp. 3 & 8.

¹¹⁸ Sowers Report, 45 (emphasis added).

¹¹⁹ *Ibid.*

Plaintiffs' theory of deception because Mr. Sowers never tested what consumers believe "natural," "natural ingredients," or "no artificial ingredients" mean.

94. The Sowers Surveys' key closed-ended "perception" question imposed on participants a specific, and tautological (circular) definition of "natural" by explicitly linking the term "natural" with "natural ingredients" (while simultaneously contrasting "natural" with "artificial ingredients") in the question's text and answer choices. However, as discussed previously, different consumers are likely to hold different conceptions of "natural," including many that are unrelated to any type or amount of ingredients, let alone "natural ingredients." Mr. Sowers failed to test for this possibility, precluding participants from providing these alternative perceptions in response to Question 5.

95. Further, the phrases "natural ingredients" and "artificial ingredients" are both broad concepts that are likely to carry a wide range of interpretations across consumers, including, *inter alia*, natural (or no artificial) colors and natural (or no artificial) fragrances, which are *not* at issue in this litigation. Given Question 5's incomplete and biased list of answer choices, which excluded many plausible alternative interpretations of "natural ingredients," the Sowers Surveys failed to provide a reliable measurement that distinguishes among (or tests) these different consumer perceptions. Consequently, the surveys do *not* provide any scientific or relevant estimates.

96. In fact, my understanding is that Tom's of Maine contends that its products (including the disputed toothpaste and deodorant products) *do* contain *only* "natural ingredients." Specifically, I understand that Tom's position is that while many perceptions of "natural" may exist in the marketplace, Tom's defines "natural" as having "naturally sourced and/or naturally derived ingredients," as set forth in its "Stewardship Model."¹²⁰ I further understand that Tom's seeks to inform, and make transparent to,

¹²⁰ See, e.g., Robinson Deposition, pp. 79 – 80 ("Q. [...] What is your understanding of why the word 'natural' appears on the products? What's your understanding? A. That's in reference to **our stewardship model, which is the definition that we have created to provide clarity for consumers on what natural means in Tom's products**" [emphasis added]) & 82 ("Q. What would you consider to be a

consumers what it means by “natural” through, *inter alia*, directly displaying such information on the disputed products’ packaging,¹²¹ inviting consumers to learn more about natural on the Tom’s of Maine website,¹²² and presenting detailed information and definitions of “natural” and “natural ingredients” on that website.¹²³ Hence, those consumers who care about “natural” personal care products, and who may be concerned about synthetic or chemically-processed ingredients in toothpastes and deodorants, would be able to readily view information that would dispel the alleged misperception.

97. As explained in Subsection B.4 of my September 21, 2018 *Expert Declaration*, consumers who are concerned about synthetic or chemically-processed ingredients in toothpastes and deodorants are exactly those consumers who are *least* likely to be deceived based on the Plaintiffs’ theory. This is because such consumers would not assume, just based on an on-package “natural” claim, that the disputed Tom’s toothpastes and deodorants do not contain any synthetic or chemically-processed

natural personal care product? A. I know what Tom’s considers to be a natural personal care product. I know **we use our definition of natural that was created to provide transparency for people because there’s not a monolithic definition**. Q. As you sit here today what would you consider to be a natural personal care product? A. My experience would say that I look at Tom’s as **providing products that are made according to the stewardship model which includes definitions for natural, safe and effective**” [emphases added; objections omitted]). *See also id.*, pp. 125 (“Q. And Tom’s of Maine determine what ingredients will comply with the stewardship model, correct? A. The stewardship model is used as a guide for selecting ingredients that are accepted or not accepted into our products.”) & 127 (“Q. What’s your understanding just as you sit here today of that process? A. My understanding from a brand perspective was that this is a means of providing clarity and transparency in a category where there is none, and the process that follows involves a rigorous checklist of certain criteria that ingredients must meet in order to be considered for use in our products.”).

¹²¹ *See, e.g.*, Sowers Report, Appendix I, p. I-2. Specifically, the test stimulus shows a side panel of a disputed Tom’s toothpaste package with a box labeled “What makes a product natural and good? At Tom’s it includes how we make it.” Several statements and attributes appear below, including: “**No** animal testing,” “We share every **ingredient**, its **purpose**, and its **source** at www.tomsofmaine.com,” “**Sustainable practices** are a priority in every aspect of our business,” “**No** artificial colors, flavors, fragrance, or preservatives,” and “**We strive to maximize recycled content and recyclability** of our packaging” [emphases in the original]).

¹²² *See, e.g., ibid.* (“Our Stewardship Model, with standards for natural, sustainable, and responsible, guides every decision we make about our ingredients, processing, and packaging. To learn more about our Stewardship Model, and what ‘natural’ means at Tom’s of Maine visit www.tomsofmaine.com”).

¹²³ *See, e.g.*, <https://www.tomsofmaine.com/>; <https://www.tomsofmaine.com/our-promise/stewardship-model>; <https://www.tomsofmaine.com/our-promise/ingredients>.

ingredients. Instead, consumers to whom the absence or presence of specific ingredients matter are the most likely to be highly involved in the product category, to be more informed about the topic, and to search for additional information¹²⁴ (including on Tom’s packaging and website) that would clarify Tom’s definition of “natural” and thereby dispel any alleged misperception.

98. For example, although some consumers have low, or no, knowledge about the ingredients at issue, such as sodium lauryl sulfate [“SLS”] and propylene glycol, those consumers who have formed a strong preference for personal care products without specific ingredients such as SLS or propylene glycol are likely to search for information about the disputed products’ ingredients and to realize that the products contain these ingredients. If, as the Plaintiffs assert, consumers “try to avoid” SLS and propylene glycol,¹²⁵ then simply reviewing the ingredients list on certain disputed products’ packaging¹²⁶ (see, e.g., Figure 7 below) would confirm the presence of these ingredients

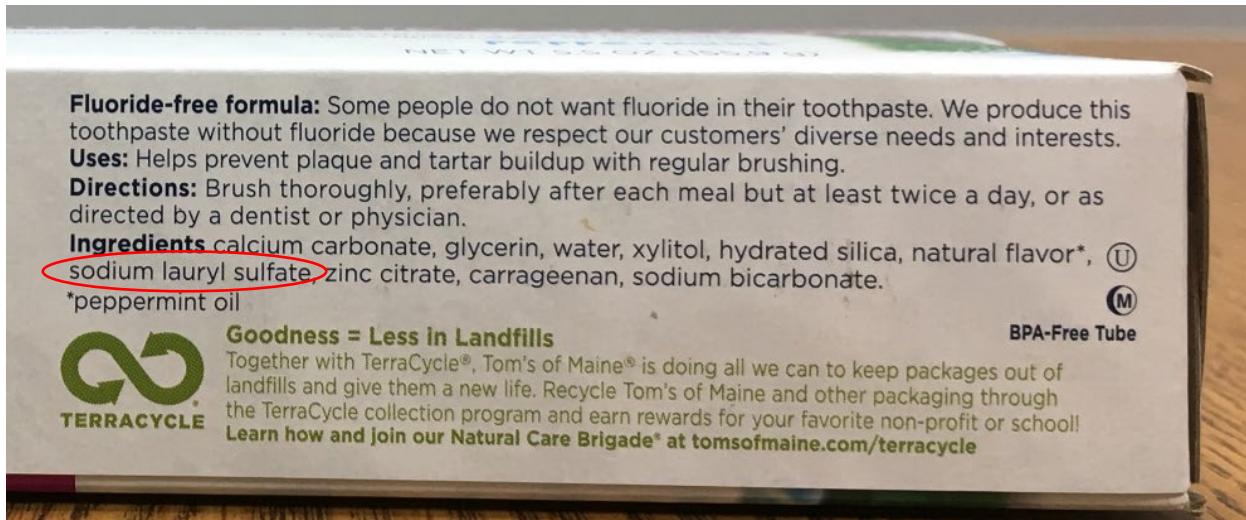
¹²⁴ See, e.g., Hoyer, Wayne D., Deborah J. MacInnis, and Rik Pieters (2013), *Consumer Behavior* (6th Ed.), Mason, OH: South-Western, Cengage Learning; Zaichkowsky, Judith L. (1985), “Measuring the Involvement Construct,” *Journal of Consumer Research*, 12(3), 341 – 352; Bloch, Peter H., Daniel L. Sherrell, and Nancy M. Ridgway (1986), “Consumer Search: An Extended Framework,” *Journal of Consumer Research*, 13(1), 119 – 126; Laurent, Gilles and Jean-Noël Kapferer (1985), “Measuring Consumer Involvement Profiles,” *Journal of Marketing Research*, 22(1), 41 – 53; Schmidt, Jeffrey B. and Richard A. Spreng (1996), “A Proposed Model of External Consumer Information Search,” *Journal of the Academy of Marketing Science*, 24(3), 246 – 256; Schrift, Rom, Oded Netzer, and Ran Kivetz (2011), “Complicating Choice,” *Journal of Marketing Research*, 48(2), 308 – 326 (Winner, 2010 Best Competitive Paper Award, Society of Consumer Psychology); Petty, Richard E., John T. Cacioppo, and Schumann, David (1983), “Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement,” *Journal of Consumer Research*, 10(2), 135 – 146; Urbany, Joel E., Peter R. Dickson, and William L. Wilkie (1989), “Buyer Uncertainty and Information Search,” *Journal of Consumer Research*, 16(2), 208 – 215; Beatty, Sharon E. and Scott M. Smith (1987), “External Search Effort: An Investigation Across Several Product Categories,” *Journal of Consumer Research*, 14(1), 83 – 95. See also Shrum, L. J., John A. McCarty, and Tina M. Lowrey (1995), “Buyer Characteristics of the Green Consumer and their Implications for Advertising Strategy,” *Journal of Advertising*, 24(2), 71 – 82.

¹²⁵ Class Certification Motion, p. 3.

¹²⁶ As I discussed in Subsection B.4 of my September 21, 2018 *Expert Declaration*, academic research indicates that considerable proportions (often more than 75%) of consumers are aware of, search for, and review the ingredients lists and nutrition facts appearing on product packaging. See, e.g., Christoph, Mary J., Ruopeng An, and Brenna Ellison (2016), “Correlates of Nutrition Label Use Among College Students and Young Adults: A Review,” *Public Health Nutrition*, 19(12), 2135 – 2148; Kim, Sung-Yong, Rodolfo M. Nayga Jr., and Oral Capps Jr. (2001), “Food Label Use, Self-Selectivity, and Diet Quality,” *The Journal of Consumer Affairs*, 35(2), 346 – 363; Nayga Jr., Rodolfo M. (1996), “Determinants of Consumers’ Use of

in these products.¹²⁷

Figure 7: Screenshot of Ingredients List on a Disputed Tom's Toothpaste ¹²⁸



Nutritional Information on Food Packages," *Journal of Agricultural and Applied Economics*, 28(2), 303 – 312; Ollberding, Nicholas J., Randi L. Wolf, and Isobel Contento (2011), "Food Label Use and Its Relation to Dietary Intake Among US Adults, *Journal of the American Dietetic Association*, 111(5), S47 – S51; Zarkin, Gary A. and Donald W. Anderson (1992), "Consumer and Producer Responses to Nutrition Label Changes," *American Journal of Agricultural Economics*, 74(5), 1202 – 1207; for a review, *see also* Campos, Sarah, Juliana Doxey, and David Hammond (2010), "Nutrition Labels on Pre-Packaged Foods: A Systematic Review," *Public Health Nutrition*, 14(8), 1496 – 1506.

¹²⁷ Indeed, as one participant from the Sowers Toothpaste Survey noted in response to the "main message" question: "This struck me as a decent attempt at a natural toothpaste, however it contains sodium lauryl sulfate, which I am trying to avoid. It's a very common surfactant in things like toothpaste, shampoo, soap, and laundry detergent, but it's an endocrine disruptor (estrogen mimic)" [Respondent #975]. Relatedly, one participant from the Sowers Deodorant Survey wrote in response to the "other messages" (probe) question: "It contains propylene glycol which is not a good ingredient to have in a product that is supposed to be good for your health" [Res. #104]. In fact, consumers who wish to avoid SLS would be able to purchase other Tom's products, whose ingredients (and ingredients lists) do *not* include SLS; *see, e.g.*, <https://www.tomsofmaine.com/our-promise/ingredients/sodium-lauryl-sulfate> ("However, for consumers who prefer to use a product without SLS, we offer some SLS-free alternatives. In the past we offered Clean & Gentle toothpaste that used glycyrrhizin, derived from licorice root, to foam and disperse ingredients, but that product was discontinued as consumers told us it did not meet their expectations. Our Botanically Bright™ and Botanically Fresh™ toothpastes use our best performing SLS alternative, a blend of Sodium Cocoyl Glutamate and Lauryl glucoside, which are other naturally derived dispersants from coconut or palm kernel oil and corn.").

¹²⁸ Screenshot taken from Exhibit G.1 of the September 21, 2018 Kivetz Expert Declaration (showing photos of the "test" toothpaste package I used). The accused ingredient, sodium lauryl sulfate, is highlighted in red.

99. In addition to scrutinizing the packaging, consumers who are concerned about synthetic or chemically-processed ingredients, or who want to know exactly what “natural ingredients” means in toothpastes or deodorants, are also likely to visit the Tom’s of Maine website, where they can readily learn about Tom’s definition of “natural” and “natural ingredients.” For example, the homepage (as well as other webpages) features a menu at the very top of the page with two links, titled “Learn what we mean by natural” and “Explore our ingredients.”¹²⁹ Clicking on the first link directs the user to a page explaining Tom’s “Stewardship Model,”¹³⁰ while clicking on the second link directs to a page with detailed information about the sourcing and processing of ingredients included in Tom’s products.¹³¹

100. Visitors to the “Stewardship Model” webpage would encounter information that clarifies Tom’s particular conception of “natural,” both with respect to its ingredient and its packaging standards.¹³²

A naturally healthy life doesn’t just happen. It comes from making thoughtful decisions on what to do—and what not to do. That’s how we approach our ingredient selection when creating safe and effective products for you. **We work very hard to find and combine the best naturally sourced and naturally derived ingredients, guided by a process we call our Stewardship Model.**

Every ingredient we use goes through our Stewardship review process, which directs our standards for **creating natural, safe, and effective products**. Packaging choices are also guided by the Stewardship Model as we are always striving to improve **sustainability**. [Emphases added]

101. The webpage describes the two areas that “the Stewardship Model guides”:¹³³

OUR FORMULA STANDARDS: NATURAL, SAFE AND EFFECTIVE

- Ingredients sourced and derived from nature
- Formulas free of artificial flavors, fragrances, colors, sweeteners and preservatives as well as *animal ingredients. (read our full policy here)

¹²⁹ <https://www.tomsofmaine.com/>.

¹³⁰ <https://www.tomsofmaine.com/our-promise/stewardship-model>.

¹³¹ <https://www.tomsofmaine.com/our-promise/ingredients>. Note that the title of this webpage appearing on the browser tab is “Natural Ingredients in Tom’s of Maine Products.”

¹³² <https://www.tomsofmaine.com/our-promise/stewardship-model>.

¹³³ *Ibid.* Underlined text denote hyperlinks to separate webpages.

- Not tested on animals
- Honesty in purpose and source of all ingredients.
- Ingredient processing that supports human and environmental health

**A few of our products contain beehive ingredients. Beeswax and/or propolis are found in floss, Propolis & Myrrh toothpastes, Peppermint Botanically Bright toothpaste, and Natural Strength Deodorants.*

OUR PACKAGING STANDARDS: SAFE AND SUSTAINABLE

- Reducing packaging waste through the development of recyclable, reusable and compostable options.
- Responsibly designed packaging without added BPA

102. Similarly, a visitor who lands on the “Natural Ingredient” webpage¹³⁴ would be able to read detailed information about both what Tom’s means by “natural ingredients”:¹³⁵

SAFE AND HARDWORKING NATURAL INGREDIENTS

In making products for you, we strive for transparency and quality in ingredients. We want to help you make the choices that are right for you and your family! Learn more about the naturally sourced and derived ingredients included in Tom’s of Maine natural personal care products.

LEARN WHAT WE MEAN BY NATURAL¹³⁶

NATURALLY SOURCED

This is what we call an ingredient when it hasn’t changed much from how it occurs in the identified source material. An example of this is peppermint oil. The peppermint oil we use in our products has been removed and concentrated but it is otherwise much the same as it would be found in the peppermint leaves.

NATURALLY DERIVED

Naturally derived ingredients have been modified from their original state through additional processing. This is generally done to improve the ingredient’s safety or efficacy. An example of this is silica. In its natural state, silica would be too abrasive, so it goes through some processing to improve the ingredient’s safety.

PREPARATION PROCESSES

In reviewing ingredients for our products – whether naturally sourced or derived – we do consider the preparation processes involved. And it is our practice to only allow preparation processes which support our philosophy of human and environmental health.

¹³⁴ <https://www.tomsofmaine.com/our-promise/ingredients>.

¹³⁵ *Ibid.* Underlined text denote hyperlinks to separate webpages.

¹³⁶ This link directs to the Stewardship Model webpage; <https://www.tomsofmaine.com/our-promise/stewardship-model>.

READ MORE¹³⁷

103. Notably, the above definition of “natural” was completely *omitted* from the Sowers Surveys’ closed-ended Question 5. Instead, participants were led by the surveys to express supposed agreement with a *single*—and tautological—definition of “natural.” In particular, the Sowers Surveys’ definition of “natural” focused on the presence of “natural ingredients” and the absence of “artificial ingredients.”

104. The “Natural Ingredients” page on Tom’s website also lists, in alphabetical order, the ingredients contained in Tom’s products, with separate pages devoted to each ingredient. Therefore, a consumer who is trying to avoid, or is interested in learning about, sodium lauryl sulfate (SLS) and propylene glycol (ingredients at issue in this litigation¹³⁸) could readily click on their corresponding links. The page for sodium lauryl sulfate,¹³⁹ for example, contains information that: (i) describes and defines the ingredient in reader-friendly terms;¹⁴⁰ (ii) explains the function of the ingredient;¹⁴¹ (iii) explains why Tom’s believes the ingredient aligns with their Stewardship Model;¹⁴² (iv) describes and offers alternatives to the ingredient, including specific Tom’s products that do not use the specified ingredient;¹⁴³ and (v) invites the reader to decide whether using products

¹³⁷ This link directs to an “Ingredient Processing” webpage that discusses the processing that Tom’s accepts versus does not accept in their products (“Through our Stewardship process we not only review the starting material(s), but also the processing steps used to obtain the ingredient we use in our products. As examples we allow fermentation and saponification, but would not allow ethoxylation, propoxylation and quaternization.”); <https://www.tomsofmaine.com/our-promise/ingredients/processing>.

¹³⁸ See, e.g., Class Certification Motion, p. 3.

¹³⁹ See, e.g., <https://www.tomsofmaine.com/our-promise/ingredients/sodium-lauryl-sulfate>.

¹⁴⁰ E.g., “Sodium lauryl sulfate (SLS) is the sodium salt of lauryl sulfate. It typically appears as a white or cream colored crystal or powder”; *ibid.*

¹⁴¹ E.g., “In many of our toothpastes SLS is used as a surfactant and helps to properly disperse the ingredients during brushing, and ensures easy rinsing and removal of debris [...]”); *ibid.*

¹⁴² E.g., “Sodium lauryl sulfate may be derived from either petroleum based or vegetable based sources. The SLS Tom’s of Maine uses is entirely derived from the vegetable sources of coconut and/or palm kernel oil. [...]”; *ibid.*

¹⁴³ E.g., “[F]or consumers who prefer to use a product without SLS, we offer some SLS-free alternatives [...]”; *ibid.*

with the ingredient is the right option for them.¹⁴⁴ The page for propylene glycol follows a similar structure.¹⁴⁵

105. Critically, participants in the Sowers Surveys who share Tom's view of the meaning of "natural" and "natural ingredients" and who answered in Question 5 that the toothpaste or deodorant shown "contains only natural ingredients (i.e., no artificial ingredients)" would therefore *not* be deceived, and would have been erroneously counted by Mr. Sowers as deceived. However, there is no way to identify such participants based on the Sowers Surveys' data, given that closed-ended Question 5 tested (or attempted to test) only whether participants' opinions conformed to one narrow interpretation of "natural."

106. In summary, the Sowers Surveys' key closed-ended "perception" question, which served as the *sole basis* for Mr. Sower's invalid deception estimates, was fatally flawed and non-determinative. Specifically, this question: (i) amounted to a trivial and leading "matching" test; (ii) provided an incomplete and slanted list of answer choices that focused participants on a single research hypothesis; (iii) omitted any options that could represent Tom's definition or multiple other alternative interpretations of "natural"; and (iv) ultimately failed to test the Plaintiffs' theory of deception.

G. THE SOWERS REPORT IS INCOMPLETE; THE SURVEYS' RESULTS, IF ANYTHING, DEMONSTRATE A LACK OF A LIKELIHOOD OF CONSUMER DECEPTION; AND THE SOWERS SURVEYS DO NOT PROVIDE ANY EVIDENCE OF MATERIALITY

107. As delineated in the preceding section, the Sowers Report's conclusion that "[a] substantial proportion of relevant consumers who viewed the Tom's [toothpaste / deodorant] packaging took away a mistaken belief that the product contains only natural ingredients (i.e., no artificial ingredients)"¹⁴⁶ are based exclusively on *a single (closed-*

¹⁴⁴ E.g., "[I]ndividuals who are prone to canker sores or who have a known sensitivity to SLS should seek an SLS-free alternative"; *ibid.*

¹⁴⁵ See <https://www.tomsofmaine.com/our-promise/ingredients/propylene-glycol>.

¹⁴⁶ Sowers Report, ¶ 10.

ended) question (Q.5) in the Sowers Surveys. This question was severely flawed, and its bias was exacerbated by the surveys' underinclusive consumer universe and fundamentally improper controls. It is striking, therefore, that despite the surveys' severe one-sided biases in the Plaintiffs' favor, the results (including data that Mr. Sowers failed to report), if anything, indicate an *absence* of a likelihood of deception. Finally, it is also noteworthy that the Sowers Surveys were not designed to test whether—and do not provide any evidence that—the challenged “natural” claim is a material factor driving consumers' decisions to purchase the disputed Tom's products. Next, I elaborate on and substantiate my aforementioned conclusions.

G.1. Mr. Sowers Failed to Provide a Complete Report of His Surveys' Results

108. As Professor Diamond explains,¹⁴⁷ it is important that a survey report provide complete and detailed information on all relevant survey characteristics, including an accurate analysis and reporting of results and the full set of (screener and main) questionnaires, codes, results, and data tables required to rigorously evaluate the survey. According to Professor Diamond:¹⁴⁸

The completeness of the survey report is one indicator of the trustworthiness of the survey and the professionalism of the expert who is presenting the results of the survey.

109. Despite indicating in his report that he supervised a “team of coders who coded the open-ended responses,”¹⁴⁹ Mr. Sowers did *not* fully disclose the coding or results for his three open-ended questions. For the “main message” and “other messages” questions (Q.1 – Q.2), he reported (incomplete) results for only one coding category—whether or not the participant's response mentioned “something about the ‘natural’ representation,”¹⁵⁰ stating only that (in the Sowers Toothpaste Survey) “[...] 68.4% of

¹⁴⁷ Diamond (2011), pp. 415 – 416.

¹⁴⁸ *Id.*, p. 415.

¹⁴⁹ Sowers Report, ¶ 15.

¹⁵⁰ See, e.g., *id.*, ¶ 42 & Table 1.

Test Group respondents and 72.8% of Control Group respondents indicated that the packaging communicated something about the natural representation.”¹⁵¹

110. Critically, Mr. Sowers failed to report *any* coding or results for his key *open-ended* perception question (Q.4), which asked participants what the packaging communicated “about whether or not the [toothpaste / deodorant] is natural.¹⁵² Indeed, when summarizing the surveys’ findings, Mr. Sower derives his conclusions solely from the closed-ended Question 5, omitting any reference to what was found (or not found) in the immediately preceding Question 4. More specifically, Mr. Sower writes the following:¹⁵³

Respondents who indicated in Q3 that the product packaging did communicate something about whether or not the [toothpaste / deodorant] is natural were asked Q5. Responses to Q5 were analyzed to determine whether the “natural” representation on the Tom’s [toothpaste / deodorant] packaging communicates to relevant consumers that the product contains only natural ingredients (i.e., no artificial ingredients).

111. However, Question 4 constitutes a “key” perception question whose responses are more reliable than the fatally flawed Question 5; this is because Question 4 is open-ended and less leading compared to the closed-ended Question 5. As I explain next, analyses of participants’ responses to the open-ended Question 4, as well as to the two preceding open-ended questions (Q.1 and Q.2), demonstrate a *lack* of likelihood of deception.

G.2. The Sowers Surveys’ Results, If Anything, Demonstrate a Lack of a Likelihood of Consumer Deception

112. In the subsections that follow, I evaluate separately the results from the Sowers Surveys’ closed-ended “perception” question (Q.5), “main/other message(s)” questions (Q.1 – Q.2), and open-ended “perception” question (Q.4).

¹⁵¹ *Id.*, ¶ 42. See *id.*, ¶ 72 for the corresponding language summarizing the results of Questions 1 and 2 in the Sowers Deodorant Survey (“[...] 76.0% of Test Group respondents and 76.9% of Control Group respondents mentioned something about the natural representation on the packaging.”).

¹⁵² See *id.*, Appendix D, pp. D-23 & D-43. Question 4 was only asked of participants who previously answered in Question 3 that the product packaging did communicate “something about whether or not the [toothpaste / deodorant] is natural.”

¹⁵³ Sowers Report, ¶ 44.

G.2.1. The Results from the Sowers Surveys' *Closed-Ended "Perception" Question (Q.5)* Do Not Support the Alleged Consumer Deception and, If Anything, Suggest a Lack of a Likelihood of Deception

113. To reach his conclusions about consumer deception, Mr. Sowers solely relied on data obtained from the closed-ended "perception" question (Q.5) in each survey. According to the Sowers Report, responses to Question 5 produced "net" deception rates of 26.3% and 24.0% for the Sowers Toothpaste Survey and the Sowers Deodorant Survey, respectively (see Figures 7a and 7b below, which reproduce Mr. Sowers's tabulated results).

Figure 7a: Mr. Sowers's Reported Results for the Key Closed-Ended "Perception" Question (Q.5) in the Sowers Toothpaste Survey¹⁵⁴

Table 3: Q5.

Based on the product packaging, do you believe the toothpaste shown...?

	Test Group		Control Group		Net Deception %
	N	%	N	%	
Contains <u>only</u> natural ingredients (i.e., no artificial ingredients)	125	59.8%	69	33.5%	26.3%
Contains <u>some</u> natural ingredients and <u>some</u> artificial ingredients	26	12.4%	97	47.1%	
Contains <u>no</u> natural ingredients (i.e., only artificial ingredients)	6	2.9%	3	1.5%	
No opinion	4	1.9%	1	0.5%	
Don't know/Unsure	7	3.3%	7	3.4%	
Not included in analysis ²⁰	41	19.6%	29	14.1%	
Total	209	100.0%*	206	100.0%*	

*percentages do not sum to 100.0% due to rounding

¹⁵⁴ Sowers Report, ¶ 46 & Table 3.

Figure 7b: Mr. Sowers's Reported Results for the Key Closed-Ended "Perception" Question in the Sowers Deodorant Survey¹⁵⁵

Table 6: Q5.

Based on the product packaging, do you believe the deodorant shown...?

	Test Group		Control Group		Net Deception
	N	%	N	%	%
Contains <u>only</u> natural ingredients (i.e., no artificial ingredients)	125	62.5%	80	38.5%	24.0%
Contains <u>some</u> natural ingredients and <u>some</u> artificial ingredients	30	15.0%	95	45.7%	
Contains <u>no</u> natural ingredients (i.e., only artificial ingredients)	3	1.5%	0	0.0%	
No opinion	3	1.5%	0	0.0%	
Don't know/Unsure	10	5.0%	5	2.4%	
Not included in analysis ³¹	29	14.5%	28	13.5%	
Total	200	100.0%	208	100.0%*	

*percentages do not sum to 100.0% due to rounding

114. As I explain below, the aforementioned results, if anything, suggest an absence of a likelihood of consumer deception.

115. *First*, as a threshold matter, given that Mr. Sowers failed to properly test the Plaintiff's theory of deception (see Subsection F.4), the results of Question 5 are non-determinative. For example, according to the Sowers Report's Table 6 (see Figure 7b above), there is a "net" likelihood of 24% of consumers perceiving that the Tom's deodorant package contains "only natural ingredients (i.e., no artificial ingredients)." Contrary to Mr. Sower's conclusion, this statistic does *not* show that consumers are deceived, because these results could also be consistent with consumers adopting Tom's definition of "natural ingredients" (i.e., as being "naturally sourced" or "naturally derived").¹⁵⁶ Relatedly, Question 5 did not test, and therefore cannot provide any empirical support for, the Plaintiffs' hypothesis that consumers are misled into believing that the disputed Tom's products do not contain any synthetic or chemically-processed ingredients.

¹⁵⁵ *Id.*, ¶ 78 & Table 6.

¹⁵⁶ See, e.g., <https://www.tomsofmaine.com/our-promise/ingredients>.

116. *Second*, considering the Sowers Surveys' flawed sample and methodology, the improper and biased control, and the leading key closed-ended "perception" question (Q.5), it is noteworthy that Mr. Sowers nevertheless obtained "net" deception rates of 26% and 24% and not higher. Had Mr. Sowers (*i*) sampled the correct consumer universe, (*ii*) employed a proper control, and (*iii*) used a non-leading key "perception" question, his observed "net" deception estimates would have been substantially lower.

117. *Third*, Mr. Sowers's control stimuli generated considerable levels of survey error or "noise,"¹⁵⁷ indicating high rates of participant guessing behavior and further evincing the survey's leading nature and unreliability. In particular, *over 33%* and *over 38%* of control group participants in the Sowers Toothpaste Survey and the Sowers Deodorant Survey, respectively, selected the answer choice "contains only natural ingredients (i.e., no artificial ingredients)" after encountering a control package that prominently displayed the "control claim" and "control disclosure" language ("**CONTAINS SOME NATURAL INGREDIENTS***" and "***contains one or more artificial ingredients**").¹⁵⁸ Indeed, in the Sowers Deodorant Survey, nearly *as many* participants in the control group selected the "contains only natural ingredients" option (38.5%) as those selecting Mr. Sower's "expected" answer—that the product "contains some natural ingredients and some artificial ingredients" (45.7%).

118. The high rates of "noise" observed in both of Mr. Sowers's surveys are indicative of significant guessing behavior and/or inattention, further demonstrating the unreliability and invalidity of the Sowers Surveys' results. Overall, my professional opinion is that an analyses of Question 5's results suggests the *absence*, rather than the existence, of a likelihood of deception.

¹⁵⁷ High levels of survey noise, which may often indicate participant guessing (and/or other flaws inherent in the survey), have been criticized by courts. *See, e.g., U.S. Polo Ass'n, Inc. v. PRL USA Holdings, Inc.*, 800 F. Supp. 2d 515, 534 (S.D.N.Y. 2011) *aff'd*, 511 F. App'x 81 (2d Cir. 2013) (excluding survey in part because "[t]he high levels of confusion elicited by [...] controls throw the study's use into further doubt").

¹⁵⁸ *See, e.g.*, Sowers Report, ¶ 22 (emphasis in the original).

G.2.2. *The Results from the Sowers Surveys’ Open-Ended “Main Message/Other Messages” Questions (Q.1 & Q.2) Do Not Support the Alleged Consumer Deception*

119. Recall that after their exposure to a (test vs. control) stimulus, participants in the Sowers Surveys were first asked two open-ended, general “main message / other messages” questions to assess their perceptions of what the packaging they were shown communicated to them:¹⁵⁹

Q.1 What was the main message communicated to you by the product packaging? (Please answer as completely as possible. You are not limited by the size of the answer box.)

Don’t know/Unsure

Q.2 What other messages, if any, were communicated to you by the product packaging? (Please answer as completely as possible. You are not limited by the size of the answer box.)

No other messages

120. Figures 8a and 8b below reproduce the Sower Report tabulated results for the aforementioned open-ended “main message/other messages” questions corresponding to the Sowers Toothpaste Survey and the Sowers Deodorant Survey, respectively.

(Continues on next page)

¹⁵⁹ See *id.*, pp. D-22 & D-42. Note that in Question 1, participants could *either* type in the box or select the “Don’t know/Unsure” option. Similarly, in Question 2, participants could *either* type in the box or select the “No other messages” option.

Figure 8a: Mr. Sowers’s Reported Results for the “Main Message/Other Messages” Questions in the Sowers Toothpaste Survey¹⁶⁰

Table 1: Q1/Q2.

What was the main message communicated to you by the product packaging? / What other messages, if any, were communicated to you by the product packaging?

	Test Group		Control Group	
	N	%	N	%
Mentioned something about the “natural” representation	143	68.4%	150	72.8%
No mention of the “natural” representation	66	31.6%	56	27.2%
Total	209	100.0%	206	100.0%

Figure 8b: Mr. Sowers’s Reported Results for the “Main Message/Other Messages” Questions in the Sowers Toothpaste Survey¹⁶¹

Table 4: Q1/Q2.

What was the main message communicated to you by the product packaging? / What other messages, if any, were communicated to you by the product packaging?

	Test Group		Control Group	
	N	%	N	%
Mentioned something about the “natural” representation	152	76.0%	160	76.9%
No mention of the “natural” representation	48	24.0%	48	23.1%
Total	200	100.0%	208	100.0%

121. Violating Professor Diamond’s admonition that a survey expert should fully report the survey’s relevant results, Mr. Sowers fails to disclose any other data from Questions 1 and 2 besides whether the participant “[m]entioned something about the ‘natural’ representation.” The Sowers Report does not even describe or clarify how responses were classified into this (overly) broad category. For example, Mr. Sowers’s classification criteria would presumably include *any* responses that mentioned “natural,” without differentiating among participants who indicated that the product is “natural,” “all/100% natural,” “not natural,” or some other qualification of “natural” (e.g., “natural appeal”). That is, participants holding completely different (and even *opposing*) perceptions involving “natural” would nevertheless be (inappropriately) grouped under the same category according to Mr. Sower’s coding.

¹⁶⁰ Sowers Report, ¶ 42 & Table 1.

¹⁶¹ *Id.*, ¶ 74 & Table 4.

122. The limited information that Mr. Sowers *does* report suggests, if anything, an *absence* of likelihood of deception. In particular, Mr. Sowers's own tabulation shows that there is *no* statistically significant difference in mentions of the "natural" representation between the test and control groups (*i.e.*, 68.4% [test] vs. 72.8% [control] in the Sowers Toothpaste Survey; 76.0% [test] vs. 76.9% [control] in the Sowers Deodorant Survey).¹⁶² This lack of difference (based on *any* mentions of "natural") is unsurprising, given that the control stimuli explicitly mentioned "natural" (*i.e.*, "**CONTAINS SOME NATURAL INGREDIENTS****" and "***contains one or more artificial ingredients**").

123. My coding and analysis of participants' responses to the "main message/other messages" questions reveals, *inter alia*, that: (*i*) participants did *not* take away the alleged misperception that the disputed products do not contain any synthetic or chemically-processed ingredients; and (*ii*) participants took away a wide variety of messages, which varied across the participants; many such takeaways either were completely unrelated to "natural" or contextualized "natural" in a manner consistent with Tom's definition of "natural." Tables 3a and 3b summarize participants' takeaways in the "main message/other message(s)" questions (Q.1 & Q.2) of the toothpaste and deodorant surveys, respectively. I first present these tables below and then summarize the conclusions from both. Note that in each table, I report the percentage (and number) of participants in the test versus control groups who provided a response coded into each of several categories (*e.g.*, "No synthetic / chemically-processed ingredients"). Note also that many categories consist of subcategories that refer to more specific types of messages (*e.g.*, the "No synthetic / chemically-processed ingredients" category counts all participants in each group who mentioned that the product has no synthetic ingredients, has no chemically-processed ingredients, *and/or* has no chemicals).

¹⁶² The 4.4% difference between the test and control groups in the Sowers Toothpaste Survey is *not* statistically significant ($\chi^2 = 0.965$, $df = 1$, $p > .32$). Similarly, the 0.9% difference between the test and control groups in the Sowers Deodorant Survey is *not* statistically significant ($\chi^2 = 0.0483$, $df = 1$, $p > .82$).

Table 3a: Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Toothpaste Survey)¹⁶³

	“Test” Toothpaste (N = 209)	“Control” Toothpaste (N = 206)	“Net”
NO SYNTHETIC / CHEMICALLY-PROCESSED INGREDIENTS¹⁶⁴	0.5% (1)	1.5% (3)	-1.0%
Contains/has/made with no synthetic ingredients	0% (0)	0% (0)	
Contains/has/made with no chemically-processed ingredients	0% (0)	0% (0)	
Contains/has no chemicals	0.5% (1)	1.5% (3)	
ONLY NATURAL INGREDIENTS / NO ARTIFICIAL INGREDIENTS¹⁶⁵	16.7% (35)	7.8% (16)	9.0%
Contains/has/made with only/all natural ingredients	3.3% (7)	0% (0)	
Contains/has/made with no artificial ingredients	2.4% (5)	1.5% (3)	
Contains/has/made with nothing artificial	0% (0)	0% (0)	
All/100% natural	11.5% (24)	6.3% (13)	
NATURAL¹⁶⁶	49.8% (104)	34.5% (71)	15.3%
SOME NATURAL / ARTIFICIAL INGREDIENTS	0.5% (1)	24.8% (51)	-24.3%
Some/one or more natural ingredients	0% (0)	12.1% (25)	
Some/one or more artificial ingredients	0% (0)	5.8% (12)	
Both natural and artificial ingredients	0% (0)	3.4% (7)	
Not completely/all natural	0% (0)	1.9% (4)	
Not completely/all natural ingredients	0% (0)	1.0% (2)	
Natural with artificial ingredients	0.5% (1)	3.4% (7)	

¹⁶³ Analyses based on Appendix G to the Sowers Report. Percentages may total more than 100% due to responses belonging to more than one coding category. Question 1 asked: “What was the main message communicated to you by the product packaging?”. Question 2 asked: “What other messages, if any, were communicated to you by the product packaging?”; Sowers Report, Appendix D, p. D-22.

¹⁶⁴ This category’s “net” denotes responses that are consistent with the Plaintiffs’ theory of deception—namely, that consumers believe the disputed products to contain no synthetic or chemically-processed ingredients.

¹⁶⁵ As explained in ¶ 125, this category’s “net” denotes responses that are not informative regarding the Plaintiffs’ theory of deception.

¹⁶⁶ As explained in ¶ 126, this category’s “net” denotes responses that parrot the “natural” claim, such as indicating that the product is “natural.”

Table 3a (cont.): Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Toothpaste Survey)

	“Test” Toothpaste (N = 209)	“Control” Toothpaste (N = 206)	“Net”
<i>OTHER MESSAGES RELATED TO “NATURAL”¹⁶⁷</i>	12.0% (25)	18.4% (38)	-6.5%
<i>TOM’S / BRAND RECOGNITION / PRODUCT NAME / PAST USAGE</i>	42.6% (89)	40.3% (83)	2.3%
Tom’s (of Maine)/Brand	37.8% (79)	35.9% (74)	
Wicked (Fresh)/Product name	12.4% (26)	14.6% (30)	
Current/past usage/familiarity	0.5% (1)	1.0% (2)	
<i>FLAVOR / TASTE / MINT(Y) / FRESH / CLEAN</i>	35.4% (74)	30.1% (62)	5.3%
Flavor/taste/scent / (Pepper-/spear-) Mint / Minty	23.4% (49)	18.4% (38)	
Fresh/refreshing (flavor/taste/scent/breath)	15.8% (33)	13.6% (28)	
Clean (mouth/breath)	2.4% (5)	3.4% (7)	
<i>FLUORIDE / ANTI-CAVITY</i>	18.7% (39)	15.5% (32)	3.1%
(With) Fluoride	11.0% (23)	9.2% (19)	
Anti-cavity / prevents cavities	9.1% (19)	6.8% (14)	
<i>QUALITY / GOOD / EFFECTIVE / HEALTHY</i>	27.8% (58)	24.8% (51)	3.0%
(High) Quality/good/better/reliable	8.1% (17)	11.2% (23)	
Effective/Proven/Works (well)	6.7% (14)	4.4% (9)	
Protects/cleans teeth / Good for you/your teeth	7.7% (16)	7.8% (16)	

¹⁶⁷ Category “net” denotes responses that mention or could plausibly relate to “natural” with some qualification; specifically: “has/contains natural ingredients” (5.3% [test] vs. 6.8% [control]); “looks/seems natural” (0.5% vs. 0.5%); “mostly natural” (0% vs. 1.9%); “mostly natural ingredients” (0% vs. 1%); “attempt at natural” (0% vs. 0.5%); “many natural ingredients” (0% vs. 0.5%); “natural is better” (0% vs. 0.5%); “more natural approach” (0.5% vs. 0%); “more natural (ingredients)” (0% vs. 1.0%); “natural taste/flavor” (0.5% vs. 0.5%); “natural fluoride” (0.5% vs. 0%); “natural whitening” (0.5% vs. 0%); “natural way to get clean white teeth” (0.5% vs. 0%); “natural mint” (0% vs. 0.5%); “what natural means to company/natural involves how product made” (0% vs. 1.0%); “naturally tested” (0% vs. 0.5%); “unsure which ingredients are natural” (0% vs. 0.5%); “nature” (0% vs. 0.5%); “no (artificial) sugar/sweeteners” (1.4% vs. 1.5%); “no artificial colors/flavors/preservatives” (3.3% vs. 1.5%); “less manufactured ingredients” (0% vs. 0.5%); “less synthetic ingredients” (0% vs. 0.5%); and “less chemicals” (0% vs. 0.5%).

Table 3a (cont.): Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Toothpaste Survey)

	“Test” Toothpaste (N = 209)	“Control” Toothpaste (N = 206)	“Net”
Healthy/healthier	6.2% (13)	4.9% (10)	
Good value	0.5% (1)	0% (0)	
Good ingredients	1.0% (2)	1.0% (2)	
COMPANY ECO-FRIENDLINESS / HISTORY / ETHICS / GIVING	17.2% (36)	15.0% (31)	2.2%
Eco-friendly/sustainable/recyclable (packaging)/responsible	10.5% (22)	5.8% (12)	
No animal testing/ingredients / Cruelty-free	3.8% (8)	3.4% (7)	
Founders/couple / Family business / Local / Company backstory	1.9% (4)	4.4% (9)	
Made in US/Maine	3.3% (7)	1.0% (2)	
Company has been around since 1970/for a long time	3.3% (7)	1.0% (2)	
Transparent/earnest/ethical / Mission/motto / Disclose ingredients	1.9% (4)	1.5% (3)	
Charitable giving/Employees volunteer/donate	1.0% (2)	2.4% (5)	
OTHER MESSAGES ¹⁶⁸	23.4% (49)	20.9% (43)	2.6%
DON’T KNOW / ALL OTHER MESSAGES	7.2% (15)	8.7% (18)	-1.6%
Don’t know/remember	2.9% (6)	2.9% (6)	
Vague/unspecified / All other messages	4.3% (9)	5.8% (12)	

¹⁶⁸ Category “net” denotes responses that mention other messages not listed above (and not related to “natural”); specifically: “design/appearance/new packaging” (5.7% [test] vs. 5.8% [control]); “ingredients (list/info)/listed ingredients” (4.3% vs. 3.9%); “how ingredients are sourced” (1.0% vs. 0%); “specific ingredient named” (0% vs. 1.0%); “few/fewer ingredients” (0.5% vs. 0%); “no harm/no harmful ingredients” (1.4% vs. 0.5%); “no GMOs” (0% vs. 0.5%); “no/fewer additives” (0% vs. 1.0%); “free of (unspecified) ingredients” (0% vs. 0.5%); “health warnings/information” (0% vs. 1.0%); “safe/safely made” (1.4% vs. 1.0%); “product information/benefits (unspecified)” (1.4% vs. 1.0%); “whitening/whitens teeth” (1.9% vs. 1.9%); “clean ingredients” (0.5% vs. 0.5%); “new product” (0.5% vs. 1.9%); “friendly” (1.0% vs. 1.0%); “unique/different” (0% vs. 0.5%); “gluten-free” (0.5% vs. 0.5%); “organic” (1.9% vs. 0.5%); “size/amount” (2.9% vs. 1.0%); “toothpaste (general)” (2.9% vs. 1.9%); “for all ages/adults and kids/family” (2.9% vs. 1.0%); “buy product/want to try this” (1.9% vs. 1.9%); “toxic” (0% vs. 0.5%); “has specific bad ingredient” (0% vs. 1.0%); “expensive/costly” (0% vs. 0.5%); and “packaging not attractive” (0.5% vs. 0%).

Table 3b: Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Deodorant Survey)¹⁶⁹

	“Test” Deodorant (N = 200)	“Control” Deodorant (N = 208)	“Net”
NO SYNTHETIC / CHEMICALLY-PROCESSED INGREDIENTS	3.5% (7)	1.0% (2)	2.5%
Contains/has/made with no synthetic ingredients	0% (0)	0% (0)	
Contains/has/made with no chemically-processed ingredients	0% (0)	0% (0)	
Contains/has no chemicals	3.5% (7)	1.0% (2)	
ONLY NATURAL INGREDIENTS / NO ARTIFICIAL INGREDIENTS	16.0% (32)	10.1% (21)	5.9%
Contains/has/made with only/all natural ingredients	2.5% (5)	1.9% (4)	
Contains/has/made with no artificial ingredients	1.0% (2)	1.0% (2)	
Contains/has/made with nothing artificial	1.0% (2)	0.5% (1)	
All/100% natural	13.0% (26)	7.7% (16)	
NATURAL	50.5% (101)	33.2% (69)	17.3%
SOME NATURAL / ARTIFICIAL INGREDIENTS	0.5% (1)	21.2% (44)	-20.7%
Some/one or more natural ingredients	0% (0)	17.3% (36)	
Some/one or more artificial ingredients	0% (0)	2.9% (6)	
Both natural and artificial ingredients	0% (0)	0.5% (1)	
Not completely/all natural	0% (0)	1.4% (3)	
Not completely/all natural ingredients	0% (0)	0.5% (1)	
Natural with artificial ingredients	0% (0)	1.4% (3)	
Not natural	0.5% (1)	0% (0)	
OTHER MESSAGES RELATED TO “NATURAL”¹⁷⁰	22.0% (44)	22.1% (46)	-0.1%

¹⁶⁹ Analyses based on Appendix G to the Sowers Report. Percentages may total more than 100% due to responses belonging to more than one coding category. Question 1 asked: “What was the main message communicated to you by the product packaging?”. Question 2 asked: “What other messages, if any, were communicated to you by the product packaging?”; Sowers Report, Appendix D, p. D-42.

¹⁷⁰ Category “net” denotes responses that mention or could plausibly relate to “natural” with some qualification; specifically: “has/contains natural ingredients” (9.0% [test] vs. 11.5% [control]); “derived from natural ingredients” (1.0% vs. 0%); “mostly natural” (0% vs. 1.9%); “mostly natural

Table 3b (cont.): Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Deodorant Survey)

	“Test” Deodorant (N = 200)	“Control” Deodorant (N = 208)	“Net”
<i>TOM’S/ BRAND RECOGNITION/ PRODUCT NAME / PAST USAGE</i>	29.5% (59)	29.8% (62)	-0.3%
Tom’s (of Maine)/Brand	28.5% (57)	29.8% (62)	
(Product) Name	1.5% (3)	0% (0)	
Current/past usage/familiarity	0.5% (1)	0% (0)	
<i>SCENT/ FLORAL/ (SOOTHING) CALENDULA/ FRESH/ CLEAN</i>	18.0% (36)	16.8% (35)	1.2%
Scent / Floral scent / (Soothing) calendula	10.0% (20)	10.1% (21)	
Good scent/smell	3.5% (7)	2.4% (5)	
Soothing	1.0% (2)	1.0% (2)	
Fresh/refreshing (scent)	1.5% (3)	1.9% (4)	
Clean	4.5% (9)	3.4% (7)	
<i>NO ALUMINUM</i>	32.0% (64)	25.0% (52)	7.0%
<i>QUALITY/ GOOD/ EFFECTIVE/ HEALTHY</i>	31.0% (62)	35.1% (73)	-4.1%
(High) Quality/good/better/reliable	4.5% (9)	3.8% (8)	
Effective/Proven/Works (well)/Keeps dry	3.5% (14)	1.9% (4)	
Prevent odor / Odor protection	3.0% (6)	4.8% (10)	
Long lasting	12.5% (25)	11.5% (24)	
24 hr/all day/hours long protection/coverage	8.0% (16)	12.0% (25)	
Healthy/healthier / Good for you	3.5% (7)	4.8% (10)	
Good value	0% (0)	0.5% (1)	

ingredients” (0.5% vs. 1.9%); “maybe natural” (0% vs. 0.5%); “almost (all) natural” (0% vs. 1.4%); “somewhat natural” (0% vs. 0.5%); “natural image” (0% vs. 0.5%); “naturally fresh” (0.5% vs. 0%); “naturally made” (0.5% vs. 0%); “natural fragrance” (2.5% vs. 0.5%); “more natural (ingredients)” (1.0% vs. 1.4%); “natural (24 hr) odor protection” (1.5% vs. 0.5%); “natural in production, manufacturing, running production” (0.5% vs. 0%); “what natural means to company/explains why product is natural” (1.0% vs. 0%); “nature” (0.5% vs. 1.0%); “no artificial colors/fragrance/preservatives” (3.5% vs. 2.4%); “fewer artificial ingredients/additives” (0% vs. 0.5%); and “less chemicals” (1.0% vs. 0%).

Table 3b (cont.): Main and Other Messages Communicated by the Packaging (Q.1 – Q.2 of the Sowers Deodorant Survey)

	“Test” Deodorant (N = 200)	“Control” Deodorant (N = 208)	“Net”
Good ingredients	0.5% (1)	1.4% (3)	
<i>COMPANY ECO-FRIENDLINESS / HISTORY / ETHICS / GIVING</i>	24.0% (48)	23.1% (48)	0.9%
Eco-friendly/sustainable/recyclable (packaging)/responsible	10.5% (21)	13.0% (27)	
No animal testing/ingredients / Cruelty-free	11.0% (22)	6.3% (13)	
Founders/couple / Family business / Local / Company backstory	0.5% (1)	0.5% (1)	
Made in US/Maine	1.5% (3)	0.5% (1)	
Company has been around since 1970/for a long time	2.5% (5)	1.4% (3)	
Transparent/earnest/ethical / Mission/motto / Disclose ingredients / Controls manufacturing process	1.0% (2)	2.4% (5)	
Charitable giving/Employees volunteer/donate	8.5% (17)	5.8% (12)	
<i>OTHER MESSAGES</i> ¹⁷¹	23.5% (47)	24.5% (51)	-1.0%
<i>DON’T KNOW / ALL OTHER MESSAGES</i>	4.0% (8)	6.7% (14)	-2.7%
Don’t know/remember	2.0% (4)	1.4% (3)	
Vague/unspecified / All other messages	2.0% (4)	5.3% (11)	

¹⁷¹ Category “net” denotes responses that mention other messages not listed above (and not related to “natural”); specifically: “design/appearance/new packaging” (4.0% [test] vs. 2.9% [control]); “safe/safely made” (4.5% vs. 3.4%); “deodorant (general)” (2.5% vs. 3.4%); “ingredients (list/info)/listed ingredients” (1.0% vs. 2.4%); “find ingredients/stewardship information online” (1.0% vs. 2.4%); “few/fewer/no excess ingredients” (1.0% vs. 1.0%); “vegetable derived” (0.5% vs. 0%); “simple” (1% vs. 0.5%); “no harm/no harmful ingredients” (2.5% vs. 1.0%); “fewer harmful ingredients” (0% vs. 0.5%); “wholesome ingredients” (0.5% vs. 0%); “no metals” (0.5% vs. 0%); “free of unwanted (unspecified) ingredients” (0.5% vs. 0.5%); “product information/benefits (unspecified)” (0.5% vs. 0.5%); “new product” (1.0% vs. 1.0%); “unique/different” (1.5% vs. 0%); “clean ingredients” (0% vs. 0.5%); “easy/convenient” (1.5% vs. 0.5%); “organic” (1.0% vs. 2.4%); “friendly” (0% vs. 1.0%); “size/amount” (0.5% vs. 1.0%); “stick/roll” (0.5% vs. 1.0%); “liking of product” (0.5% vs. 0.5%); “buy product/want to try this” (1.0% vs. 2.4%); “has specific bad ingredient” (0.5% vs. 0%); “expensive/costly” (0% vs. 0.5%); “packaging not attractive” (0% vs. 0.5%); and “prefer another brand” (0.5% vs. 0%).

124. As Tables 3a and 3b show, participants' responses were consistent across the Sowers Toothpaste Survey and the Sowers Deodorant Survey in several key respects. *First*, contrary to the Plaintiffs' theory of deception, *no* participants in either survey mentioned that the Tom's product they were shown contains no synthetic ingredients or contains no chemically-processed ingredients. In the Sowers Toothpaste Survey (*see* Table 3a, row 4), only one participant in the test group (0.5%) and three participants in the control group (1.5%) expressed a potentially related belief that the product contains no chemicals.¹⁷² In the Sowers Deodorant Survey (*see* Table 3b, row 4), only a net of 2.5% of participants expressed the same belief (*i.e.*, 3.5% vs. 1.0% in the test vs. control groups, respectively).

125. *Second*, perceptions related to "only natural ingredients," "no artificial ingredients," and "all/100% natural" are not determinative of the alleged deception, given that the Sowers Survey never tested what consumers believe such statements to mean. Nevertheless, only a net of 9.0% of participants (*i.e.*, 16.7% [test] vs. 7.8% [control]) mentioned that the toothpaste either contains "only natural ingredients," contains "no artificial ingredients" (or "nothing artificial"), or is "all/100% natural" (*see* Table 3a). Similarly, only a net of 5.9% of participants (*i.e.*, 16.0% [test] vs. 10.1% [control]) mentioned the same messages for the deodorant product (*see* Table 3b). Not only are these "net" levels quite low and not meaningful, but they are artificially inflated due to the surveys' biased control stimuli, which artificially depressed rates of mentioning "only natural ingredients" or "no artificial ingredients" by control group participants.

126. *Third*, in both surveys, despite the control package's exaggerated "control claim" and "control disclosure" (*i.e.*, that the product "**CONTAINS SOME NATURAL**

¹⁷² Note that I conservatively coded responses indicating "no chemicals" as being potentially related to the Plaintiffs' theory of deception, which refers to synthetic or chemically-processed ingredients. Such a coding is conservative because a belief that a product has "no chemicals" is distinct from a belief that a product has ingredients that were chemically processed to some degree (but are not chemicals in themselves).

INGREDIENTS** and **“*contains one or more artificial ingredients”**), substantial proportions of control participants (34.5% and 33.2% in the Sowers Toothpaste Survey and Sowers Deodorant Survey, respectively; *see* Tables 3a and 3b) nevertheless parroted back the “natural” claim by describing the product as “natural.” Such high rates of control participants who played back a message that the product is “natural” further demonstrate how flawed and improper Mr. Sowers’s control stimuli were. Indeed, the fact that many participants still described the Tom’s packaging to be “natural” *despite* an exaggerated disclosure stating that the product **“CONTAINS SOME NATURAL INGREDIENTS”** and **“*contains one or more artificial ingredients”** suggests that a considerable proportion of consumers do *not* equate the challenged “natural” claim with containing *only* natural ingredients. That is, the fact that over a third of control participants described the product as “natural” (despite seeing a disclosure that explicitly mentioned that the product contains artificial ingredients) suggests, if anything, that a product that “contains some natural ingredients” (and “contains one or more artificial ingredients”) is not automatically “unnatural” but rather could still be perceived as “natural.”

127. *Fourth*, across both surveys, participants took away a range of other messages, including messages that either: (i) are unrelated to a “natural” claim; or (ii) contextualize or qualify “natural” (*e.g.*, that the product merely uses or has natural ingredients) in a manner that is consistent with Tom’s position. For example, test group participants in the Sowers Toothpaste Survey (*see* Table 3a) mentioned messages like: brand equity/recognition (42.6%),¹⁷³ flavor/taste (including mint/freshness; 35.4%),¹⁷⁴ quality/efficacy (27.8%),¹⁷⁵ fluoride/anti-cavity (18.7%), and company eco-

¹⁷³ *E.g.*, “A new version of Tom’s toothpaste - wicked fresh [sic]” (Respondent #162); “Tom’s of Maine toothpaste is the best choice for your toothcare needs” (Res. #373). *See* Appendix G to the Sowers Report.

¹⁷⁴ *E.g.*, “This brand would be the better option because it provides fluoride and gives off a great mint taste which will leave your breath smelling fresh.” (Res. #1548); “Mint flavor and leaves you with fresh breath.” (Res. #1085). *See ibid.*

¹⁷⁵ *E.g.*, “That it has been a best product since a long time ago.” (Res. #235); “It’s a quality product” (Res. #557); “It looked like toothpaste that looks like it can do its job really well.” (Res. #981). *See ibid.*

friendliness/ethics/giving (17.2%).¹⁷⁶ Similarly, test group participants in the Sowers Deodorant Survey (*see Table 3b*) mentioned such messages as: no aluminum (32.0%), quality/efficacy (31.0%),¹⁷⁷ brand equity/recognition (29.5%),¹⁷⁸ company eco-friendliness/ethics/giving (24.0%),¹⁷⁹ and scent (including soothing calendula/freshness; 18.0%).¹⁸⁰ The aforementioned messages both varied across individuals and did *not* differ between the surveys' test and control groups.

128. Overall, participants' responses to the Sowers Surveys' two open-ended "main message/other messages" questions (which were almost entirely ignored by Mr. Sowers) indicate that participants did *not* spontaneously take away the alleged misperception, as well as that participants formed myriad interpretations and perceptions from the product packaging (including many that either do not relate to a "natural" claim or that contextualize the "natural" claim consistent with Tom's definition).

G.2.3. *The Results from the Sowers Surveys' Key Open-Ended "Perception" Question (Q.4) Do Not Support the Alleged Consumer Deception and, If Anything, Indicate a Lack of a Likelihood of Deception*

129. Immediately prior to the closed-ended "perception" question (Q.5), participants had been asked Question 4, an *open-ended* question:¹⁸¹

¹⁷⁶ E.g., "The main message communicated to me by the product packaging is that Tom's is a very environmentally conscious and responsible company, from its ingredients to packaging, and practices transparency." (Respondent #622); "employee volunteering and terracycle box" (Res. #1320); "The creators were from Maine." (Res. #1185); "Tom's doesn't test product on animals, is sustainable, uses natural fluoride, and uses recycled materials" (Res. #1501). *See ibid.*

¹⁷⁷ E.g., "The main message according to what was clearly shown on the packaging is that the deodorant will be effective for roughly 24 hours and that it is aluminum free." (Res. #1450); "That it is long lasting" (Res. #1304); "that it is a good deoderant [sic] without any aluminum" (Res. #188). *See Appendix H to the Sowers Report.*

¹⁷⁸ E.g., "The Toms brand deodorant [sic] Looks very good and appealing." (Res. #347); "Yes. It come out very well. Yes I did buy this product. I used for three years. It does smell well." (Res. #1173). *See ibid.*

¹⁷⁹ E.g., "sustainable, all ingredients are listed, employees encouraged to volunteer, long lasting" (Res. #1027); "This deodorant is not tested on animals." (Res. #911); "How the company supports the community" (Res. #139). *See ibid.*

¹⁸⁰ E.g., "There is an exotic looking and smelling flower for deodorant." (Res. #670); "Other than the aluminum-free, the flavor, and the usability of the bottle, I noticed that there was a flower." (Res. #1350). *See ibid.*

¹⁸¹ *See Sowers Report, Appendix D, pp. D-23 & D-43.*

Q.4 What did the product packaging communicate about whether or not the [toothpaste / deodorant] is natural?

Don't know/Unsure

As noted in Subsection G.1, Mr. Sowers (inexplicably) failed to report any results for this key open-ended “perception” question, despite the relevance of such data for examining the likelihood of the alleged consumer deception.

130. My coding and analysis of participants’ responses to Question 4 reveal an absence of likelihood of deception. Tables 4a and 4b below summarize the various messages reported by participants in response to Question 4 in the Sowers Toothpaste Survey and the Sowers Deodorant Survey, respectively. As with my analysis of Questions 1 and 2, I first present these tables below before summarizing the takeaways from both. Again, I report the percentage and number of participants in the test versus control groups who provided a response coded into each of several categories (many of which consist of subcategories).

(Continues on next page)

Table 4a: Messages Communicated by the Packaging About Whether or Not the Toothpaste is Natural (Q.4 of the Sowers Toothpaste Survey)¹⁸²

	“Test” Toothpaste (N = 209)	“Control” Toothpaste (N = 206)	“Net”
<i>NO SYNTHETIC / CHEMICALLY-PROCESSED INGREDIENTS</i>	0% (0)	0.5% (1)	-0.5%
Contains/has/made with no synthetic ingredients	0% (0)	0% (0)	
Contains/has/made with no chemically-processed ingredients	0% (0)	0% (0)	
Contains/has no chemicals	0% (0)	0.5% (1)	
<i>ONLY NATURAL INGREDIENTS / NO ARTIFICIAL INGREDIENTS</i>	12.9% (27)	3.9% (9)	9.0%
Contains/has/made with only/all natural ingredients	5.3% (11)	1.0% (2)	
Contains/has/made with no artificial ingredients	3.8% (8)	0% (0)	
Contains/has/made with nothing artificial	0% (0)	0.5% (1)	
All/100% natural	4.3% (9)	2.9% (6)	
<i>NATURAL</i>¹⁸³	41.6% (87)	27.7% (57)	14.0%
It is/says/indicates/communicates natural	38.8% (81)	25.2% (52)	
It says so/on package	2.9% (6)	2.4% (5)	
<i>SOME NATURAL / ARTIFICIAL INGREDIENTS</i>	0.5% (1)	22.3% (46)	-21.9%
Some/one or more natural ingredients	0.5% (1)	15.5% (32)	
Some/one or more artificial ingredients	0% (0)	4.4% (9)	
Both natural and artificial ingredients	0% (0)	1.9% (4)	
Natural with artificial ingredients	0% (0)	1.9% (4)	

¹⁸² Analyses based on Appendix G to the Sowers Report. Percentages may total more than 100% due to responses belonging to more than one coding category. Question 4 asked: “What did the product packaging communicate about whether or not the toothpaste is natural?” (emphasis in the original). Note that Question 4 was asked only of participants who indicated in Question 3 that the product packaging did communicate anything about whether or not the toothpaste is natural; Sowers Report, p. D-23.

¹⁸³ Category “net” denotes responses that merely parrot the “natural” claim by, *inter alia*, indicating that the packaging says or indicates that the product is “natural.” Responses that mention other aspects that clearly do not implicate the “natural” packaging claim are not counted in this code.

Table 4a (cont.): Messages Communicated by the Packaging About Whether or Not the Toothpaste is Natural (Q.4 of the Sowers Toothpaste Survey)

	“Test” Toothpaste (N = 209)	“Control” Toothpaste (N = 206)	“Net”
OTHER MESSAGES RELATED TO “NATURAL”¹⁸⁴	15.8% (33)	24.3% (50)	-8.5%
OTHER MESSAGES¹⁸⁵	24.4% (51)	20.4% (42)	4.0%
DON’T KNOW / ALL OTHER MESSAGES	13.4% (28)	10.2% (21)	
Don’t know/remember	11.5% (24)	6.8% (14)	
Vague/unspecified / All other messages	1.9% (4)	3.4% (7)	

(Continues on next page)

¹⁸⁴ Category “net” denotes responses that mention “natural” with some qualification; specifically: “has/contains natural ingredients” (5.3% [test] vs. 6.8% [control]); “looks natural” (0% vs. 1.0%); “mostly natural” (0% vs. 1.5%); “mostly natural ingredients” (0% vs. 1.5%); “main ingredients are natural” (0.5% vs. 0%); “some/somewhat natural” (0% vs. 2.4%); “more natural (ingredients)” (0.5% vs. 0%); “natural taste/flavor” (0% vs. 0.5%); “natural feeling” (0.5% vs. 0%); “natural fluoride” (1.4% vs. 0%); “Tom’s/the brand (is natural)/past usage” (3.3% vs. 5.8%); “nature” (0% vs. 0.5%); “information on how product is natural” (1.0% vs. 1.0%); “something (unspecified) about naturalness” (0.5% vs. 0%); “founders’ story/wanted natural products” (0.5% vs. 1.0%); “fewer artificial ingredients” (0% vs. 0.5%); “no artificial flavors/colors/preservatives” (2.9% vs. 1.9%); and “less chemicals” (0.5% vs. 0%).

¹⁸⁵ Category “net” denotes responses that mention other messages unrelated to “natural”; specifically: “sources on website” (0.5% [test] vs. 0.5% [control]); “fewer ingredients” (0.5% vs. 0%); “ingredients list/what it’s made from” (3.8% vs. 2.9%); “the label/description (unspecified)” (0.5% vs. 1.5%); “information listed on back of package” (0% vs. 0.5%); “no animal testing/products” (1.4% vs. 1.9%); “safe/less harmful ingredients” (0.5% vs. 0%); “no added sugar” (0.5% vs. 0.5%); “mint/wintergreen” (1% vs. 0.5%); “(mint) flavor/fresh” (1.0% vs. 1.5%); “green mint/leaf/image” (2.9% vs. 2.9%); “design/appearance of packaging” (3.8% vs. 2.9%); “recyclable/sustainable/environmental” (2.4% vs. 0.5%); “quality/goodness” (1.0% vs. 1.9%); “organic” (1.0% vs. 1.0%); “fluoride” (2.9% vs. 1.0%); “fluoride-free” (0.5% vs. 0%); “anti-cavity” (0.5% vs. 0.5%); “efficacy” (0% vs. 0.5%); “wicked/wicked fresh/product name” (1.0% vs. 1.9%); “no added ingredients” (0.5% vs. 0%); and “no additives” (0.5% vs. 0%).

Table 4b: Messages Communicated by the Packaging About Whether or Not the Deodorant is Natural (Q.4 of the Sowers Deodorant Survey)¹⁸⁶

	“Test” Deodorant (N = 200)	“Control” Deodorant (N = 208)	“Net”
<i>NO SYNTHETIC / CHEMICALLY-PROCESSED INGREDIENTS</i>	1.5% (3)	1.0% (2)	0.5%
Contains/has/made with no synthetic ingredients	0% (0)	0% (0)	
Contains/has/made with no chemically-processed ingredients	0% (0)	0% (0)	
Contains/has no chemicals	1.5% (3)	1.0% (2)	
<i>ONLY NATURAL INGREDIENTS / NO ARTIFICIAL INGREDIENTS</i>	14.0% (28)	8.2% (17)	5.8%
Contains/has/made with only/all natural ingredients	2.0% (4)	2.9% (6)	
Contains/has/made with no artificial ingredients	2.5% (5)	1.4% (3)	
Contains/has/made with nothing artificial	1.0% (2)	0.5% (1)	
All/100% natural	9.5% (19)	3.4% (7)	
<i>NATURAL</i>	38.0% (76)	24.5% (50)	13.5%
It is/says/indicates/communicates natural	31.5% (63)	21.2% (44)	
It says so/on package	6.5% (13)	3.4% (7)	
<i>SOME NATURAL / ARTIFICIAL INGREDIENTS</i>	0.5% (1)	26.0% (54)	-25.5%
Some/one or more natural ingredients	0% (0)	21.6% (45)	
Some/one or more artificial ingredients	0% (0)	4.3% (9)	
Not completely natural	0% (0)	0.5% (1)	
Natural with artificial ingredients	0% (0)	1.0% (2)	
Not natural	0.5% (1)	0.5% (1)	

¹⁸⁶ Analyses based on Appendix H to the Sowers Report. Percentages may total more than 100% due to responses belonging to more than one coding category. Question 4 asked: “What did the product packaging communicate about whether or not the toothpaste is natural?” (emphasis in the original). Note that Question 4 was asked only of participants who indicated in Question 3 that the product packaging did communicate anything about whether or not the deodorant is natural; Sowers Report, p. D-43.

Table 4b (cont.): Messages Communicated by the Packaging About Whether or Not the Deodorant is Natural (Q.4 of the Sowers Deodorant Survey)

	“Test” Deodorant (N = 200)	“Control” Deodorant (N = 208)	“Net”
OTHER MESSAGES RELATED TO “NATURAL”¹⁸⁷	17.5% (35)	18.8% (39)	-1.3%
OTHER MESSAGES¹⁸⁸	36.5% (73)	23.6% (49)	
DON’T KNOW / ALL OTHER MESSAGES	6.5% (13)	7.2% (15)	
Don’t know/remember	5.0% (10)	6.3% (13)	
Vague/unspecified / All other messages	1.5% (3)	1.0% (2)	

(Continues on next page)

¹⁸⁷ Category “net” denotes responses that mention “natural” with some qualification; specifically: “has/contains natural ingredients” (5.0% [test] vs. 6.7% [control]); “indicates natural ingredients used” (1.0% vs. 0%); “looks/seems natural” (0% vs. 0.5%); “mostly natural” (0% vs. 1.4%); “mostly natural ingredients” (0.5% vs. 2.4%); “some/somewhat natural” (0% vs. 1.4%); “natural (odor) protection” (1.5% vs. 1.0%); “natural appeal” (0.5% vs. 0%); “explains source/manufacturing process of natural” (1.5% vs. 1.0%); “Tom’s/the brand (is natural)/past usage” (2.5% vs. 1.0%); “nature” (1.0% vs. 0%); “plant-based ingredients” (2.0% vs. 0.5%); “natural fragrance” (0% vs. 1.0%); “no harsh/man-made ingredients” (0% vs. 0.5%); “no artificial fragrance/colors/flavors/preservatives” (3.5% vs. 2.9%); and “less chemicals” (0.5% vs. 0%).

¹⁸⁸ Category “net” denotes responses that mention other messages unrelated to “natural”; specifically: “no aluminum” (18.0% [test] vs. 10.1% [control]); “ingredients list/what it’s made from” (4.5% vs. 2.4%); “sources of ingredients” (0% vs. 1.0%); “information about ingredients on website” (1.0% vs. 0%); “no antiperspirant ingredients” (0.5% vs. 0%); “easy” (0.5% vs. 0.5%); “safe/no (common) bad/harmful ingredients” (2.0% vs. 1.4%); “the label/description (unspecified)” (0% vs. 1.0%); “information listed on back/defines what’s natural” (1.0% vs. 1.0%); “no animal testing/products” (1.5% vs. 1.4%); “odor protection/24 hr/long lasting” (1.0% vs. 1.4%); “scent/fragrance” (0.5% vs. 0%); “fresh/spring” (1.0% vs. 0.5%); “clean ingredients/product” (1.5% vs. 0%); “leaf/fruit/images” (1.0% vs. 1.9%); “soothing calendula/flower” (2.0% vs. 1.0%); “design/appearance of packaging” (4.0% vs. 1.4%); “recyclable/sustainable/environmental” (1.0% vs. 0%); “quality/goodness” (1.0% vs. 0%); and “organic” (1.0% vs. 1.0%).

131. As Tables 4a and 4b show, participants' responses were consistent across the Sowers Toothpaste Survey and the Sowers Deodorant Survey in several key respects. *First*, contrary to the Plaintiffs' theory of deception, *none* of the participants in either survey mentioned that the Tom's product does *not* contain any synthetic or chemically-processed ingredients. In the Sowers Toothpaste Survey (*see* Table 4a, row 4), only one person in the control group expressed a belief that the product does *not* contain any chemicals; in the Sowers Deodorant Survey (*see* Table 4b, row 4), a net of only 0.5% of participants expressed the same belief (*i.e.*, 1.5% vs. 1.0% in the test vs. control groups, respectively).

132. *Second*, albeit not determinative of the alleged deception (given that the Sowers Surveys never tested what consumers perceive "natural," "natural ingredients," or "no artificial ingredients" to mean), only a net of 9.0% of participants (*i.e.*, 12.9% [test] vs. 3.9% [control]) mentioned that the toothpaste either contains "only natural ingredients," contains "no artificial ingredients" (or "nothing artificial"), or is "all/100% natural." Likewise, only a net of 5.8% of participants (*i.e.*, 14.0% [test] vs. 8.2% [control]) in the Sowers Deodorant Survey mentioned the same messages. These "net" estimates (which are themselves artificially inflated due to the surveys' biased control stimuli) indicate the absence of a likelihood of deception in this litigation.

133. *Third*, similar to the results of the open-ended "main message/other messages" questions (Q.1 – Q.2), responses to the key open-ended "perception" question (Q.4) reveal that despite the control package's exaggerated "control claim" and "control disclosure" (*i.e.*, that the product "**CONTAINS SOME NATURAL INGREDIENTS***" and "***contains one or more artificial ingredients**"), substantial proportions of control participants (27.7% and 24.5% in the Sowers Toothpaste Survey and Sowers Deodorant Survey, respectively) nevertheless parroted back the "natural" claim or indicated that the product is "natural." Such high rates of control participants who played back a message

that the product is “natural” again evince the flaws in the control stimuli. In fact, as with Questions 1 and 2, these high rates observed in the control condition suggest again that many consumers do *not* interpret the challenged “natural” claim to mean that the disputed products contain *only* natural ingredients (*i.e.*, it is not the case, according to many participants, that a product must contain “only natural ingredients” in order to be “natural”).

134. *Fourth*, both surveys demonstrate that participants reported myriad perceptions in response to the open-ended Question 4. Many of these reported perceptions were *not* relevant for the alleged deception or contextualized the challenged “natural” claim in a manner consistent with Tom’s position. Examples of such verbatim responses (among test group participants), which also illustrate the heterogeneity (*i.e.*, lack of commonality) in messages taken away from the disputed product packaging, include, but are not limited to:¹⁸⁹

Sowers Toothpaste Survey

- “Did not use any animal product and green mint on the package” [Respondent #16]
- “It does not have any added sugar or artificial flavors and is not tested on animals” [Res. #18]
- “They source all natural ingredients, as stated in the bio on the back of the box” [Res. #221]
- “It says that natural ingredients are used and you can find their sources on their website” [Res. #729]
- “Some of the messages are that is [sic] is sustainable and good for the environment.” [Res. #1045]

Sowers Deodorant Survey

- “It does not contain aluminum or other harmful products” [Res. #213]
- “They share every ingredient on their website along with its purpose and source.” [Res. #425]
- “That it was scented by a flower (calendurm [sic] or something) and not an artificial scent the packaging also made me think it was deodorant free from artificial dyes and colorings” [Res. #532]
- “no aluminum, no animal testing” [Res. #782]
- “They list what defines their product as natural on the back label. It shows that no animal testing is used.” [Res. #989]

135. Overall, contrary to Mr. Sower’s conclusion, the fact that the vast majority of participants in each survey did *not* perceive the product packaging to communicate

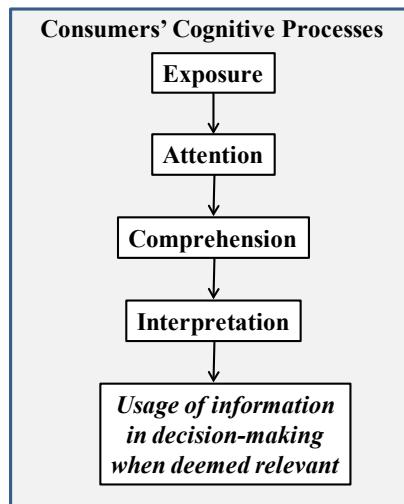
¹⁸⁹ See Sowers Report, Appendix G (Sowers Toothpaste Survey) & Appendix H (Sowers Deodorant Survey).

that the product has no synthetic and/or chemically processed ingredients—or even that the product contains only natural or no artificial ingredients—indicates, if anything, the *absence* of a likelihood of consumer deception.

G.3. The Sowers Surveys Did Not Test for Materiality and Therefore Do *Not* Provide Any Evidence Regarding the Causal Impact of the Challenged “Natural” Claim on Consumers’ Purchase Decisions

136. The question of consumer perception is different from that of materiality. More specifically, in the context of the current litigation, testing whether the challenged “natural” claim *materially influences consumers’ purchase decisions* is fundamentally different from investigating *how consumers interpret that claim*. This important distinction is consistent with academic research, which has found that consumers’ decision processes involve several distinct mental processes. According to such research, and as illustrated in Figure 8 below, consumers’ interpretations of a claim (*i.e.*, consumers’ *perceptions*) precede, are different from, and do *not* necessarily lead to consumers relying on (or “using”) that claim in their purchase decisions (*i.e.*, *materiality*).¹⁹⁰

Figure 8: Illustration of Consumers’ Decision Process



¹⁹⁰ Peter, J. Paul and Jerry C. Olson (2008), *Consumer Behavior and Marketing Strategy* (8th ed.), Boston, MA: McGraw-Hill/Irwin, pp. 48 – 50, 109 – 110, & 119 – 120.

137. The Sowers Surveys stated intention was to test consumers' perceptions of the challenged "natural" claim, not the materiality of this claim.¹⁹¹ Thus, the Sowers Surveys do *not* address whether the challenged "natural" claim exerts a material impact on class members' decisions to purchase the disputed Tom's toothpaste and deodorant products, as the Plaintiffs allege.¹⁹²

138. As set forth in my September 21, 2018 *Expert Declaration*, the two empirical surveys that I conducted for this litigation were designed to (i) determine whether the challenged "natural" claim (then appearing on the disputed Tom's toothpaste and deodorant products)¹⁹³ has a material effect on consumers' purchase decisions; and (ii) shed light on the considerations that drive consumers to purchase the disputed products. The surveys were conducted following well-established survey standards; one survey (the nationwide survey) used a sample of 420 consumers across the U.S., while the second survey (the state-specific survey) used a sample of 610 consumers residing in California, New York, and Florida.

139. In each survey, approximately half of the participants were randomly assigned to the "test condition" and viewed a disputed Tom's product (*i.e.*, a toothpaste package and a deodorant package in the nationwide and state-specific survey,

¹⁹¹ See, e.g., Sowers Report, ¶ 7.

¹⁹² See, e.g., *Complaint*, ¶¶ 1 – 4; *Class Certification Motion*, pp. 1 & 4.

¹⁹³ My surveys tested the disputed Tom's Peppermint Antiplaque & Whitening toothpaste package and the disputed Tom's Long Lasting Unscented deodorant package. I understand that the currently-selling Tom's toothpaste and deodorant products have newer packages that were made available in the marketplace in 2021; *see, e.g.*, <https://www.prnewswire.com/news-releases/new-toms-of-maine-packaging-fuses-retro-look-with-modern-day-activism-301292642.html>. *See also* <https://www.tomsofmaine.com/products/oral-care> and <https://www.tomsofmaine.com/products/deodorant-antiperspirant> (accessed July 30, 2022). I further understand that the challenged "natural" claim no longer appears on most of Tom's currently-selling deodorant packages, with the exception of Tom's Long Lasting Tea Tree deodorant and the Tom's Wicked Cool Summer Fun kids deodorant; *see, e.g.*, <https://www.tomsofmaine.com/products/deodorant-antiperspirant>. Despite the changes in the background color scheme and some modifications to other representations on the labels, Tom's currently-selling packaging nevertheless shares key similarities (*e.g.*, with respect to overall style, aesthetic, formatting, and branding elements) with the corresponding older packaging variants. Therefore, my professional opinion is that the results of my two surveys (using the older packaging)—that is, showing a *lack* of materiality of the challenged "natural" claim—would likely generalize to the current-selling disputed packaging.

respectively) which displayed the challenged “natural” claim. The remaining half of the participants were randomly assigned to the “control condition” and viewed a revised package; this control package was identical to the test package except that the challenged “natural” claim was *removed* from the package wherever it appeared.

140. As summarized in Tables 1 and 2 below,¹⁹⁴ my surveys’ results unambiguously demonstrate that the challenged “natural” claim does *not* increase consumers’ likelihood of purchasing the disputed Tom’s products.

Table 1: Percent of Participants in the Tom’s Peppermint Antiplaque & Whitening Toothpaste Nationwide Survey Selecting Various Answer Choices in Question 1¹⁹⁵

	Orange Questionnaires: Natural Claim Listed (Test Group) (N = 209)	Lilac Questionnaires: Natural Claim Removed (Control Group) (N = 211)
Definitely would buy this product	24.4%	31.8%
Probably would buy this product	28.7%	33.6%
May or may not buy this product	20.1%	13.7%
Probably would <u>not</u> buy this product	14.4%	11.4%
Definitely would <u>not</u> buy this product	8.6%	7.1%
Don’t know	3.8%	2.4%

(Continues on next page)

¹⁹⁴ See Subsection A.1.3 of my September 21, 2018 *Expert Declaration* for a detailed discussion of my surveys’ findings.

¹⁹⁵ See *id.*, ¶ 96 & Table 1. In terms of the “top two boxes” (*i.e.*, the first two rows in Table 1), the results indicate that the percent of participants who answered that they “definitely would buy this product” or “probably would buy this product” was significantly lower in the test condition than in the control condition (53.1% vs. 65.4%, respectively; $\chi^2 = 6.573$, $df = 1$, $p = .0104$). That is, *removing* the challenged “natural” claim led to a statistically significant *increase* of 12.3% in the proportion of participants who answered that they “definitely would buy this product” or “probably would buy this product.”

Table 2: Percent of Participants in the Tom’s Long Lasting Unscented Deodorant State-Specific Survey Selecting Various Answer Choices in Question 1¹⁹⁶

	Green Questionnaires: Natural Claim Listed (Test Group) (N = 303)	Yellow Questionnaires: Natural Claim Removed (Control Group) (N = 307)
Definitely would buy this product	20.5%	22.1%
Probably would buy this product	29.4%	28.7%
May or may not buy this product	25.1%	22.8%
Probably would <u>not</u> buy this product	12.5%	16.3%
Definitely would <u>not</u> buy this product	11.2%	7.2%
Don’t know	1.3%	2.9%

141. That is, in both surveys, modifying the Tom’s product packaging by removing the challenged “natural” claim did *not* materially decrease participants’ likelihood of purchasing the tested Tom’s product. To the contrary, if anything, *displaying* the “natural” claim on the Tom’s toothpaste packaging *decreased* the likelihood that participants would buy the disputed Tom’s toothpaste product. In particular, the percent of participants who answered that they “definitely would buy this product” or “probably would buy this product” was significantly lower among test group participants (who saw a package with the challenged “natural” claim) than among control group participants (who saw a package *without* the challenged “natural” claim; 53.1% vs. 65.4%, respectively; $\chi^2 = 6.573$, $df = 1$, $p = .0104$). Participants’ explanations of their purchase decisions also strongly support the conclusion that the challenged “natural” claim is *not* a material (or common) factor in consumers’ purchase decisions.¹⁹⁷

¹⁹⁶ See *id.*, ¶ 108 & Table 2. In terms of the “top two boxes” (*i.e.*, the first two rows in Table 2), the results indicate that the percent of participants who answered that they “definitely would buy this product” or “probably would buy this product” was *not* significantly different in the test condition from the control condition (49.8% vs. 50.8%, respectively; $\chi^2 = 0.059$, $df = 1$, $p > .80$). That is, removing the challenged “natural” claim did *not* affect the likelihood that participants would state that they “definitely would buy this product” or “probably would buy this product.”

¹⁹⁷ See *id.*, Subsection A.1.3.

H. **CONCLUSION: THE SOWERS SURVEYS ARE FUNDAMENTALLY FLAWED**

142. Based on my various analyses set forth in this *Rebuttal Expert Report*, as well as on my experience as a researcher, educator, and business consultant, and having conducted, supervised, or evaluated well over 1,000 marketing research studies, my professional opinion is that the Sowers Surveys are fatally flawed and are *not* based on scientific methodologies that are reasonably relied upon in this field of expertise. The Sowers Surveys suffer from multiple serious deficiencies, including, *inter alia*: (i) a failure to represent the relevant consumer universe, and use of a biased and leading key screening question; (ii) a fundamentally improper control that was commercially *unviable* and conducive to severe biases; and (iii) the *sole* reliance on a leading closed-ended question that generated severe demand effects and focalism, and that failed to properly test the Plaintiffs' theory of deception. These major survey flaws render the surveys invalid, unscientific, and incapable of providing a reasonably reliable basis from which an expert in this field could estimate the proportion of consumers who are allegedly deceived by the challenged "natural" claim. Given the numerosity and severity of flaws and one-sided biases in the Sowers Surveys, Mr. Sower's estimates and results cannot be reliably corrected or adjusted to remove the underlying bias.

143. Further, the Sowers Report is incomplete and failed to describe key results from the Sowers Surveys' open-ended questions. These key results demonstrate, if anything, a *lack* of a likelihood of deception in this litigation.

144. The aforementioned flaws lead me to conclude that there is *no* scientific basis for Mr. Sower's "net" deception estimates and for any conclusions that the Plaintiffs may derive based on his surveys in this litigation. Even assuming arguendo that the Sowers Surveys provided evidence of consumer misperception (which they did *not*), the surveys cannot address the critical question of materiality (*i.e.*, does the challenged "natural" claim have a causal, material effect on class members' decisions to

purchase the disputed Tom's products?). The two empirical consumer surveys that I conducted in this litigation tested this (materiality) question directly and found that the challenged "natural" claim unambiguously does *not* materially increase class members' likelihood of purchasing the disputed products.

145. I reserve the right to further supplement and/or revise my opinion and this *Rebuttal Expert Report* in response to any further information provided by the parties and/or in light of additional documents, which may be brought to my attention after the date of my signature below.

146. This *Rebuttal Expert Report* is to be used only for the purpose of this litigation and may not be published, distributed, or used for any other purpose without my prior written consent.

August 23, 2022

Date



Dr. Ran Kivetz, Ph.D.